

=> FILE REG

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STRUCTURE FILE UPDATES: 5 MAY 2003 HIGHEST RN 510776-00-8
DICTIONARY FILE UPDATES: 5 MAY 2003 HIGHEST RN 510776-00-8

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Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:56:58 ON 06 MAY 2003
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FILE COVERS 1907 - 6 May 2003 VOL 138 ISS 19
FILE LAST UPDATED: 5 May 2003 (20030505/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L21	4	SEA FILE=REGISTRY ABB=ON	(204995-91-5/BI OR 246220-97-3/BI OR 2809-21-4/BI OR 83929-91-3/BI)
L25	275802	SEA FILE=REGISTRY ABB=ON	46.195.39/RID
L27	32293	SEA FILE=REGISTRY ABB=ON	591.359.15/RID
L29	12344	SEA FILE=REGISTRY ABB=ON	591.62.22/RID
L33	1871	SEA FILE=REGISTRY ABB=ON	46.169.1/RID
L35	38023	SEA FILE=REGISTRY ABB=ON	46.383.21/RID
L36	125450	SEA FILE=REGISTRY ABB=ON	46.492.16/RID
L37	1	SEA FILE=REGISTRY ABB=ON	L21 AND 1-2/P

*ring identifiers
for the
nitrogen
heterocycles*

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

*aceto diposphonic
acid*

L38 1 SEA FILE=REGISTRY ABB=ON L21 AND 1-20/NR
 L39 2 SEA FILE=REGISTRY ABB=ON L21 NOT (L37 OR L38)
 L40 128901 SEA FILE=HCAPLUS ABB=ON L25
 L41 13091 SEA FILE=HCAPLUS ABB=ON L27
 L42 8348 SEA FILE=HCAPLUS ABB=ON L29
 L43 663 SEA FILE=HCAPLUS ABB=ON L33
 L44 20462 SEA FILE=HCAPLUS ABB=ON L35
 L45 88888 SEA FILE=HCAPLUS ABB=ON L36
 L46 3823 SEA FILE=HCAPLUS ABB=ON L37
 L47 96 SEA FILE=HCAPLUS ABB=ON L46 AND ((L40 OR L41 OR L42 OR L43 OR
 L44 OR L45))
 L48 2 SEA FILE=HCAPLUS ABB=ON L47 AND DYES/SC, SX
 L49 4270 SEA FILE=HCAPLUS ABB=ON (?PHOSPHONAT? OR ?BORAT?) AND ((L40
 OR L41 OR L42 OR L43 OR L44 OR L45))
 L50 70 SEA FILE=HCAPLUS ABB=ON L49 AND DYES/SC, SX
 L51 8 SEA FILE=HCAPLUS ABB=ON L50 AND ?CHROMOPHOR?
 L53 36 SEA FILE=HCAPLUS ABB=ON L50 AND (PREP OR IMF OR SPN)/RL
 L59 7 SEA FILE=HCAPLUS ABB=ON L47 AND COSMETIC?/SC, SX
 L60 49 SEA FILE=HCAPLUS ABB=ON L49 AND COSMETIC?/SC, SX
 L61 16 SEA FILE=HCAPLUS ABB=ON L60 AND (PREP OR IMF OR SPN)/RL
 L62 30 SEA FILE=HCAPLUS ABB=ON L48 OR L59 OR L51 OR L61
 L63 2 SEA FILE=HCAPLUS ABB=ON L53 AND LINK?
 L64 31 SEA FILE=HCAPLUS ABB=ON L62 OR L63
 L66 16 SEA FILE=HCAPLUS ABB=ON L39
 L67 1 SEA FILE=HCAPLUS ABB=ON L49 AND L66
 L69 28 SEA FILE=HCAPLUS ABB=ON L50 AND (TEXTILE# OR WOOL# OR COTTON
 OR SILK# KERAT? OR POLYAMIDE? OR NYLON OR HAIR OR LEATHER)
 L70 53 SEA FILE=HCAPLUS ABB=ON L64 OR L67 OR L69

=> 'SEL HIT RN L70 1-53
 E1 THROUGH E316 ASSIGNED

=> D L70 1-53 ALL FHITSTR

*316 hit RN's in the 53 references
 so printed one structure per reference*

L70 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2003:114216 HCAPLUS

DN 138:142182

TI Two component oxidative hair dyes with viscosity-related selective coloring

IN Hoeffkes, Horst; Horstmann, Barbara; Bernecker, Ullrich

PA Henkel Kgaa, Germany

SO Ger. Offen., 18 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-135

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10138094	A1	20030213	DE 2001-10138094	20010803
	WO 2003013450	A2	20030220	WO 2002-EP8388	20020727
	W: AU, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
PRAI	DE 2001-10138094	A	20010803		

OS MARPAT 138:142182

AB The invention concerns oxidative hair dyes that are composed of an alk. component and an acidic component; the acidic component contains the oxidn. agent and at least one branched C6-C30 carboxylic acid and/or C8-C30 branched or linear dicarboxylic acid or their derivs.; after mixing the two component the viscosity gradually increases, thus permitting easy application and no spreading of the dye with time. New-grown gray hair and hair stripes can be dyed selectively. The C8-C30 dicarboxylic acids are preferably cyclohexene derivs. The compns. further contain nonionic surfactants, dye precursors, and thickening agents. Thus an acidic oxydative component contained (wt./wt.): Texapon N28 2.0; dipicolinic acid 0.1; sodiumpyrophosphate 0.03; Turpinal SL 1.5; Dow Corning DB 110 A 0.07; Aculyn 33 12.0; Eumulgin B1 0.5; isostearic acid 1.5; hydrogen peroxide 12.0; ammonia to pH 4; water to 100. The alk. component included (wt./wt.): Hydrenol D 5.5; Kokoslorol 2.0; 1.0; Eutanol G 1.0; Eumulgin B1 0.5; Eumulgin B2 0.5; Lamesoft PO65 2.0; Texapon K14 S70C 2.8; Akypo Soft 45NV 10.0; Polymer W37194 3.8; sodium sulfite 0.5; L-ascorbic acid 0.4; p-tolylenediamine sulfate 1.5; 2-methylresorcin 1.1; resorcin 0.3; methyl yellow 0.05; 2,4,5,6-tetraamino pyrimidine sulfate 1.7; m-aminophenol 0.07; 4-amino-3-methylphenol 0.2; 2,7-dihydroxynaphthalene 0.5; perfume 0.3; Turpinal SL 0.2; ammonia (25%) 8.0; water to 100.

ST oxydative hair dye viscosity selective coloring cyclohexene octanoate dicarboxylate

IT Carboxylic acids, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C6-C30; two component oxidative hair dyes with viscosity-related selective coloring)

IT Alcohols, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated; two component oxidative hair dyes with viscosity-related selective coloring)

IT Alcohols, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C16-18; two component oxidative hair dyes with viscosity-related selective coloring)

IT Carboxylic acids, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(dicarboxylic, C8-C30 branched or linear; two component oxidative hair dyes with viscosity-related selective coloring)

IT Hair preparations

(dyes, oxidative; two component oxidative hair dyes with viscosity-related selective coloring)

IT Castor oil

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(ethoxylated; two component oxidative hair dyes with viscosity-related selective coloring)

IT Hair preparations

(gels, dyes; two component oxidative hair dyes with viscosity-related selective coloring)

IT Surfactants

(nonionic; two component oxidative hair dyes with viscosity-related selective coloring)

IT Oxidizing agents

Thickening agents

Viscosity

(two component oxidative hair dyes with viscosity-related selective coloring)

IT 60-11-7, Methyl yellow 108-46-3, Resorcin, biological studies

110-83-8D, Cyclohexene, dicarboxylic acid derivs. 149-57-5,
 2-Ethylhexanoic acid 582-17-2, 2,7-Naphthalenediol 591-27-5,
 m-Aminophenol 608-25-3, 2-Methylresorcin **2809-21-4**, Turpinal
 SL 2835-99-6, Phenol, 4-amino-3-methyl- 5333-42-6, Eutanol G
 6369-59-1, p-Toluenediamine sulfate 7722-84-1, Hydrogen peroxide,
 biological studies 25354-97-6, 2-Hexyldecanoic acid 25448-24-2,
 Isotridecanoic acid 30399-84-9, Isostearic acid 31694-55-0,
 Ethoxylated glycerin 32844-67-0, Isopalmitic acid 40596-46-1,
 2-Octyldodecanoic acid 42763-46-2, 2-Cyclohexene-1-octanoic acid,
 6-carboxy-4-hexyl- 42763-47-3, 2-Cyclohexene-1-octanoic acid,
 5-carboxy-4-hexyl- **49647-58-7**, Pyrimidinetetramine, sulfate
 202833-50-9, Lamesoft PO65

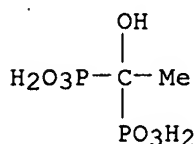
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two component oxidative hair dyes with viscosity-related selective
 coloring)

IT **2809-21-4**, Turpinal SL

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two component oxidative hair dyes with viscosity-related selective
 coloring)

RN 2809-21-4 HCAPLUS

CN Phosphonic acid, (1-hydroxyethylidene)bis- (9CI) (CA INDEX NAME)



L70 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:902214 HCAPLUS

DN 138:1668

TI Purification and characterization of an autoclavable superoxide dismutase
 (SOD) isozyme from *Potentilla atrosanguinea*, and use of the SOD in
 cosmetic, food and pharmaceutical compositions

IN Kumar, Sanjay; Sahoo, Rashmita; Ahuja, Paramvir Singh

PA Council of Scientific & Industrial Research(CSIR), India

SO U.S., 30 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C12N009-02

ICS C12N009-00; A61K038-44

NCL 435189000; 435183000; 424094400

CC 7-2 (Enzymes)

Section cross-reference(s): 17, 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6485950	B1	20021126	US 2000-617118	20000714
	US 2003064494	A1	20030403	US 2002-274053	20021021
PRAI	US 2000-617118	A3	20000714		

AB The invention relates to a novel purified isoenzyme of an autoclavable
 superoxide dismutase extd. from the plant *Potentilla atrosanguinea* Lodd.
 variety *argyrophylla*. The superoxide dismutase has the following
 characteristics: O₂-scavenging activity remains same before and after

autoclaving; scavenges O₂- from sub-zero temp. of -20.degree. C. to high temp. of +80.degree.; O₂- scavenging activity at 25.degree. for 30 days without adding any stabilizing agent such as polyols or sugars; O₂- scavenging activity in the presence of saline (0.9% sodium chloride) to 61.8% of the control (without 0.9% sodium chloride), stable at 4.degree. for at least 8 mo; contamination free and infection free from any living micro- and/or macro-organism after autoclaving. The enzyme possesses temp. optima at 0.degree.; possesses a mol. wt. of 33 kD under non-denaturing conditions; possesses a mol. wt. of 36 kD under denaturing conditions; has clear peaks in UV range at 268 and 275 nm; has an enzyme turnover no. of 19.53.times.10⁴ per nmol per min at 0.degree.; and requires Cu/Zn as a co-factor. The invention also relates to a process for the extn. of the superoxide dismutase and its use in prepg. cosmetic, pharmaceutical and food compns. The method for the prepn. of the purified isoenzyme of autoclavable superoxide dismutase and formulations contg. the said autoclavable superoxide dismutase are disclosed.

- ST Potentilla superoxide dismutase autoclavable isoenzyme cosmetics food pharmaceutical
- IT Alcohols, biological studies
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (C16-18, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (Japan wax, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Gel electrophoresis
 (PAGE, SOD detection using; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Caseins, biological studies
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Avens (Geum elatum)
 (SOD from; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Polysaccharides, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (SOD immobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Monoglycerides
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (acetates, gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

- IT Drug delivery systems
(aerosols; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(almond, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Antibodies
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(anti-SOD; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Dentifrices
(antiplaque; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Heating
(autoclaving; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(avocado, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Radish (*Raphanus sativus*)
(black, peroxidase; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(borage seed, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(cleansing; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Immobilization, molecular
(coimmobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Metabolic pathways
(compn. contg. pentose monophosphate shunt enzymes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Enzymes, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. contg. pentose monophosphate shunt enzymes; purifn. and

characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

- IT Amphiphiles
- Analgesics
- Anti-inflammatory agents
- Antibacterial agents
- Antibiotics
- Antimicrobial agents
- Antioxidants
- Beeswax
- Carriers
- Coloring materials
- Emulsifying agents
- Feed additives
- Flavoring materials
- Hemostatics
- Perfumes
- Preservatives
- Radical scavengers
- Surfactants
- Vaccines
 - (compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Castor oil
- Coconut oil
- Corn oil
- Essential oils
- Fats and Glyceridic oils, biological studies
- Fatty acids, biological studies
- Glycerides, biological studies
- Hormones, animal, biological studies
- Hydrocarbon oils
- Melanins
- Olive oil
- Palm oil
- Paraffin oils
- Phosphatidylcholines, biological studies
- Phosphatidylethanolamines, biological studies
- Polyoxyalkylenes, biological studies
- Soybean oil
- Steroids, biological studies
- Sulfites
- Thiols (organic), biological studies
- Tocopherols
- Vitamins
- RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Polyamides, biological studies
- Polyurethanes, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

- IT Drug delivery systems
(controlled-release; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(cosmetic dyes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Dyes
(cosmetic; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(creams; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Scalp
(disease, treatment of; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Gelatins, biological studies
Ovalbumin
Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Lecithins
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(egg yolk, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
Drug delivery systems
(emollients; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(emulsions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Immobilization, molecular
(enzyme; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(evening primrose, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Alcohols, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fatty, compns. contg.; purifn. and characterization of autoclavable

- superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(film; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
Drug delivery systems
(gels; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(glycospheres; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fillers
Plasticizers
(gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Rubber, biological studies
Waxes
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Enzymes, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(immobilized; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fatty acids, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lanolin, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(liposomes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Anesthetics
(local, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Glycerides, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(long-chain, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
Drug delivery systems
(lotions; purifn. and characterization of autoclavable superoxide

- dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(lozenges; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(makeup removers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Glycerides, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medium-chain, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(microgranules; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(moisturizers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Antibodies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(mousses; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
(nail lacquers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(nanospheres; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Liquids
(oils; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(ointments, creams; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(ointments; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(ophthalmic; purifn. and characterization of autoclavable superoxide

- dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 - (oral; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 - (parenterals; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 - (pastes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Spinal cord
 - (peroxidase; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Immobilization, molecular
 - (protein; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Aerosols
- Buffers
- Cosmetics
- Dental materials and appliances
- Dentifrices
- Deodorants
- Dialysis
- Drug delivery systems
- Drugs
- Food additives
- Gums and Mucilages
- HPLC
- Hair preparations
- Homogenization
- Ion exchange chromatography
- Leaf
- Potentilla*
- Potentilla argyrophylla atrosanguinea*
- Precipitation (chemical)
- Shampoos
- Solutions
- Sprays
- Stability
- Sunscreens
- Tablets
- Thermal stability
 - (purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Antiperspirants
 - (roll-on; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Albumins, biological studies
 - RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (serum, SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (sesame, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
 (skin-lightening, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (solns.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Lecithins
 Phospholipids, biological studies
 RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use);
 BIOL (Biological study); USES (Uses)
 (soya, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Proteins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (soybean, drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (sprays; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Cosmetics
 (sticks; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (suspensions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (tablets; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (topical; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
 (transdermal; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Psoriasis
 Seborrhea

- Skin, disease
(treatment of; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vegetable, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Drug delivery systems
(vesicular dispersions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(wheat germ, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT Tannins
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(zinc salts, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT 99-96-7D, alkyl esters
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Parabens, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT 9002-07-7, Trypsin
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT 9002-89-5, Polyvinyl alcohol 9004-53-9, Dextrin 9004-54-0, Dextran, uses
RL: NUU (Other use, unclassified); USES (Uses)
(SOD immobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT 56-81-5, Glycerol, biological studies
RL: ARU (Analytical role, unclassified); COS (Cosmetic use); FFD (Food or feed use); NUU (Other use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)
- IT 50-70-4D, Sorbitol, esters 50-81-7, Vitamin C, biological studies
52-90-4, L-Cysteine, biological studies 57-10-3, Palmitic acid, biological studies 57-10-3D, Palmitic acid, glycerides 57-11-4, Stearic acid, biological studies 57-41-0, Phenytoin 57-50-1, Sucrose,

biological studies 57-55-6, Propylene glycol, biological studies
 58-08-2, Caffeine, biological studies 58-95-7, Tocopherol acetate
 59-02-9, .alpha.-Tocopherol 60-33-3, Linoleic acid, biological studies
 60-33-3D, Linoleic acid, glycerides 62-53-3, Aniline, biological studies
 63-42-3, Lactose 63-68-3, L-Methionine, biological studies 64-17-5,
 Ethanol, biological studies 67-56-1, Methanol, biological studies
 67-63-0, Isopropanol, biological studies 69-93-2, Uric acid, biological
 studies 70-18-8, Reduced glutathione, biological studies 71-23-8,
 Propanol, biological studies 71-36-3, Butanol, biological studies
 74-79-3, L-Arginine, biological studies 77-09-8, Phenolphthalein
 87-99-0, Xylitol 90-05-1, Guaiacol 106-69-4, 1,2,6-Hexanetriol
 107-21-1, Ethylene glycol, biological studies 107-35-7, Taurine
 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate
 110-36-1, Butyl myristate 112-53-8, Lauryl alcohol 112-72-1, Myristyl
 alcohol 112-80-1, Oleic acid, biological studies 112-80-1D, Oleic
 acid, glycerides 112-85-6, Behenic acid 112-86-7, Erucic acid
 112-92-5, Stearyl alcohol 122-99-6, Phenoxyethanol 124-07-2D, Caprylic
 acid, glycerides 124-07-2D, Octanoic acid, hydroxylated polyisobutenyl
 derivs. 127-17-3, biological studies 127-82-2, Zinc phenol sulfonate
 128-44-9, Sodium saccharinate 141-22-0, Ricinoleic acid 142-91-6,
 Isopropyl palmitate 143-07-7, Lauric acid, biological studies
 143-07-7D, Lauric acid, glycerides 143-28-2, Oleyl alcohol 302-04-5,
 Thiocyanate, biological studies 334-48-5D, Capric acid, glycerides
 364-98-7, Diazoxide 404-86-4, Capsaicin 463-40-1, Linolenic acid
 463-40-1D, Linolenic acid, glycerides 506-30-9, Arachidic acid
 526-84-1, Dihydroxymaleic acid 527-60-6, Mesitol 538-23-8, Octanoic
 acid triglyceride 540-11-4, Ricinoleyl alcohol 544-63-8, Myristic
 acid, biological studies 544-63-8D, Myristic acid, alkyl esters
 544-63-8D, Myristic acid, glycerides 546-46-3, Zinc citrate 553-72-0,
 Zinc benzoate 557-34-6, Zinc acetate 585-86-4, Lactitol 616-91-1,
 N-Acetyl-L-cysteine 621-71-6 628-97-7, Ethyl palmitate 629-98-1,
 Erucyl alcohol 661-19-8, Behenyl alcohol 1300-26-1, Zinc
 glycerophosphate 1314-13-2, Zinc oxide, biological studies 1314-22-3,
 Zinc peroxide 1330-70-7, Hydroxystearic acid 1332-07-6, Zinc
 borate 1406-18-4, Vitamin E 1464-42-2, Selenomethionine
 2599-01-1, Cetyl myristate 2724-58-5, Isostearic acid 2814-60-0
 3068-00-6, 1,2,4-Butanetriol 3460-37-5, Hexyl stearate 3486-35-9, Zinc
 carbonate 3614-08-2, Selenocysteine 4345-03-3 4468-02-4, Zinc
 gluconate 5333-42-6, 2-Octyl-dodecanol 7235-40-7, .beta.-Carotene
 7631-86-9, Silica, biological studies 7646-85-7, Zinc chloride,
 biological studies 7681-49-4, Sodium fluoride, biological studies
 7699-45-8, Zinc bromide 7733-02-0, Zinc sulfate 7779-88-6, Zinc
 nitrate 7782-49-2, Selenium, biological studies 9001-48-3, Glutathione
 reductase 9003-20-7, Polyvinyl acetate 9003-99-0, Peroxidase
 9004-61-9, Hyaluronic acid 9005-00-9, Steareth-2 9005-63-4D,
 Polyoxyethylenesorbitan, fatty acid esters 9007-43-6, Cytochrome c,
 biological studies 9013-66-5, Glutathione peroxidase 10191-41-0,
 DL-.alpha.-Tocopherol 10401-55-5, Cetyl ricinoleate 11103-57-4,
 Vitamin A 11126-29-7, Zinc silicate 12441-09-7D, Sorbitan, fatty acid
 esters 12651-25-1, Zinc titanate 13463-41-7, Zinc pyrithione
 13826-88-5, Zinc tetrafluoroborate 14281-83-5, Zinc glycinate
 16283-36-6, Zinc salicylate 16871-71-9, Zinc hexafluorosilicate
 16887-00-6, Chloride, biological studies 16984-48-8, Fluoride,
 biological studies 18312-31-7, Stearyl octanoate 20461-54-5, Iodide,
 biological studies 24959-67-9, Bromide, biological studies 25231-21-4,
 Polypropylene glycol stearyl ether 25265-75-2, Butylene glycol
 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol
 25618-55-7D, Polyglycerin, fatty acid esters 26281-43-6,

3,5-Dichloro-2-hydroxybenzenesulfonic acid 27458-93-1, Isostearyl alcohol 32797-18-5, 1,3-Butadien-1-ol 36653-82-4, Hexadecyl alcohol **38304-91-5**, Minoxidil 39467-17-9, Zinc stannate 51744-92-4, .alpha.-Tocopheryl linoleate 52225-20-4 52296-98-7, Octadecanediol 71276-50-1, .alpha.-Tocopherol phosphate 77752-14-8, Purcellin oil 476494-41-4

RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compsn. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 67-66-3, Chloroform, biological studies 9003-01-4, Polyacrylic acid 9003-07-0, Polypropylene 9004-57-3, Ethyl cellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8D, Starch, derivs

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compsn. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 9054-89-1P, Superoxide dismutase

RL: ANT (Analyte); BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(copper-zinc-contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 83-88-5, Riboflavine, uses 298-83-9, Nitroblue tetrazolium

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(detn. of SOD by PAGE; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 9003-05-8, Polyacrylamide

RL: ARU (Analytical role, unclassified); ANST (Analytical study)

(detn. of SOD by PAGE; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 9000-01-5, Gumarabic

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 53-57-6, NADPH

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(pentose monophosphate shunt pathway enzymes regenerating; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 11062-77-4, Superoxide

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical comps.)

IT 9000-92-4, Amylase

RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(purifn. and characterization of autoclavable superoxide dismutase

(SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 7447-40-7, Potassium chloride (KCl), uses 7783-20-2, Ammonium sulfate, uses 9013-34-7, DEAE cellulose

RL: NUU (Other use, unclassified); USES (Uses)
(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

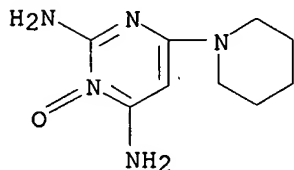
(1) Beuno; Plant Physiol 1995, V108, P1151
(2) Gudin; US 5536654 A 1996 HCAPLUS
(3) Gupta; PNAS, USA 1993, V90, P1629 MEDLINE
(4) Miyata; US 4563349 A 1986 HCAPLUS

IT 38304-91-5, Minoxidil

RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

RN 38304-91-5 HCAPLUS

CN 2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide (9CI) (CA INDEX NAME)



L70 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:833527 HCAPLUS

DN 137:338627

TI Polymeric articles containing hindered amine stabilizers based on multi-functional carbonyl compounds

IN Sassi, Thomas P.

PA USA

SO U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 704,840.
CODEN: USXXCO

DT Patent

LA English

IC ICM C08K005-34

NCL 524099000

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 42, 62, 74

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002161075	A1	20021031	US 2001-87266	20011025
PRAI	US 2000-704840	A2	20001103		

AB Polymeric articles contg. at least one polymeric material and a sufficient amt. of at least one novel hindered amine stabilizers to inhibit at least one of photo- or thermal degrdn. The hindered amine light stabilizer may be a monomeric or an oligomeric hindered amine light stabilizer.
2,2,6,6-Tetramethylpiperidin-4-yl 6-(2,2,6,6-tetramethyl-4-

piperidinoxycarbonyl amino)hexanoate was prepd. and used in stabilization of polypropylene.

ST hindered amine stabilizer

IT Polyurethanes, preparation
 RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (acrylic; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Transparent materials
 (coatings; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Polyimides, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (polyamide-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Polyimides, properties
 Polysulfones, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (polyether-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Polyamides, properties
 Polyethers, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (polyimide-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Antioxidants
 Cosmetics
 Dyes
 Heat stabilizers
 Inks
 Light stabilizers
 Paper
 Photographic paper
 UV stabilizers
 (polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Alkyd resins
 Aminoplasts
 Epoxy resins, properties
 Linear low density polyethylenes
 Natural rubber, properties
 Phenolic resins, properties
 Polyamides, properties
 Polycarbonates, properties
 Polyesters, properties
 Polyethers, properties
 Polyimides, properties
 Polyketones
 Polyolefins
 Polyoxymethylenes, properties
 Polyoxyphenylenes
 Polysulfones, properties
 Polythiophenylenes
 Polyurethanes, properties
 Synthetic rubber, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (polymeric articles contg. hindered amine stabilizers based on

- multi-functional carbonyl compds.)
- IT Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polysulfone-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT Acrylic polymers, preparation
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polyurethane-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT Coating materials
(transparent; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 74-85-1D, Ethene, polymers with .alpha.-olefins
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(LLDPE; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 9003-53-6
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(impact-resistant; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 439689-26-6P 439689-27-7P 439689-29-9P 439689-30-2P 439689-32-4P
439689-33-5P 439689-35-7P 439932-78-2P 439932-82-8P 474043-45-3P
RL: **IMF (Industrial manufacture)**; MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 225529-96-4P, DESMODUR N-3390-JONCRYL CDX-588 copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 13177-43-0P 70288-80-1P 92858-40-7P 439689-28-8P 439689-31-3P
439689-37-9P 443678-52-2P 443678-53-3P
RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
- IT 106-89-8D, Epichlorohydrin, reaction products with 7,7,9,9-tetramethyl-2-cycloundecyl-1-oxa-3,8-diaza-4-oxospiro[4.5]decane 128-37-0,
2,6-Di-tert-butyl-4-methylphenol, uses 131-56-6, 2,4-Dihydroxybenzophenone 131-57-7, 2-Hydroxy-4-methoxybenzophenone 976-56-7, Diethyl-3,5-di-tert-butyl-4-**hydroxybenzylphosphonate** 1470-79-7 **1668-53-7**, 2-(2,4-Dihydroxyphenyl)-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine 1709-70-2, 1,3,5-Tris(3,5-di-tert-butyl-4-hydroxybenzyl)-2,4,6-trimethylbenzene 1843-03-4, 1,1,3-Tris(5-tert-butyl-4-hydroxy-2-methylphenyl)butane 1843-05-6, 2-Hydroxy-4-octyloxybenzophenone 2162-63-2, 2-Hydroxy-4-decyloxybenzophenone 2440-22-4, 2-(2'-Hydroxy-5'-methylphenyl)-benzotriazole **2725-22-6** 2985-59-3, 2-Hydroxy-4-dodecyloxybenzophenone 3135-18-0, Dioctadecyl-3,5-di-tert-butyl-4-**hydroxybenzylphosphonate** 3147-75-9, 2-(2'-Hydroxy-5'-(1,1,3,3-tetramethylbutyl)phenyl)benzotriazole 3147-76-0 3147-77-1 3846-71-7 3864-99-1, 2-(3',5'-Di-tert-butyl-2'-hydroxyphenyl)-5-chlorobenzotriazole 3896-11-5 6079-76-1, 2-Hydroxy-4-benzyloxybenzophenone 6131-38-0 10176-09-7 **13681-75-9** 23128-74-7 23328-53-2 25973-55-1 27676-62-6,

1,3,5-Tris(3,5-di-tert-butyl-4-hydroxybenzyl)isocyanurate 32687-78-8
 35958-30-6, 2,2'-Ethylidene-bis(4,6-di-tert-butylphenol) 36437-37-3
 40075-75-0 40601-76-1 41556-26-7, Bis(1,2,2,6,6-pentamethylpiperidin-4-yl)sebacate 52829-07-9, Bis(2,2,6,6-tetramethylpiperidin-4-yl) sebacate 62782-03-0, Bis(2,2,6,6-tetramethylpiperidin-4-yl)succinate 63843-89-0
 64022-57-7, Tris(2,2,6,6-tetramethylpiperidin-4-yl) nitrilotriacetate 64022-61-3, Tetrakis(2,2,6,6-tetramethylpiperidin-4-yl)-1,2,3,4-butanetetracarbox ylate 64337-97-9 69851-61-2 70198-29-7,
 1-(2-Hydroxyethyl)-2,2,6,6-tetramethyl-4-hydroxypiperidine-succinic acid copolymer 70321-86-7 71029-16-8 **72058-42-5** 79720-19-7
82451-48-7 82537-67-5, 8-Acetyl-3-dodecyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-2,4-dione 83044-89-7 83044-90-0
 83044-91-1 84268-22-4 84268-23-5 84268-33-7 104564-32-1,
 4-Stearyloxy-2,2,6,6-tetramethylpiperidine **106556-36-9**,
 2-(2-Hydroxy-4-methoxyphenyl)-4,6-diphenyl-1,3,5-triazine 106917-30-0
 106917-31-1 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl)sebacate 122586-95-2 **131290-55-6** 131747-52-9
137658-77-6 **144757-53-9** 145983-67-1
147315-50-2 **148236-55-9** **154825-62-4**
168921-81-1 **178905-31-2** **214692-65-6**
 219991-91-0 222557-48-4 474043-37-3 474043-38-4 **474043-40-8**
 474043-41-9D, reaction products with epichlorohydrin **474043-42-0**
474043-43-1 474043-44-2

RL: MOA (Modifier or additive use); USES (Uses)

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT **9003-08-1**, Formaldehyde-melamine copolymer 9003-35-4, Formaldehyde-phenol copolymer 9003-54-7, SAN copolymer 9003-56-9, ABS copolymer 9004-36-8, Cellulose acetate butyrate 9011-05-6, Formaldehyde-urea copolymer 24938-67-8, PPO 25038-54-4, Nylon 6, properties 25085-53-4, PROFAX 6501

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 105-60-2, Caprolactam, reactions 111-11-5, Methyl caprylate 542-52-9, Dibutyl carbonate 553-90-2, Dimethyl oxalate 616-38-6, Dimethylcarbonate 2403-88-5, 2,2,6,6-Tetramethyl-4-piperidinol 2403-89-6, 1,2,2,6,6-Pentamethyl-4-piperidinol

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

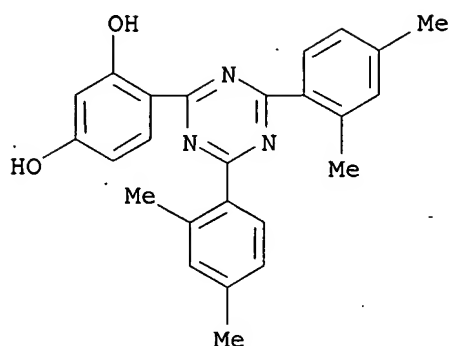
IT **1668-53-7**, 2-(2,4-Dihydroxyphenyl)-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine

RL: MOA (Modifier or additive use); USES (Uses)

(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

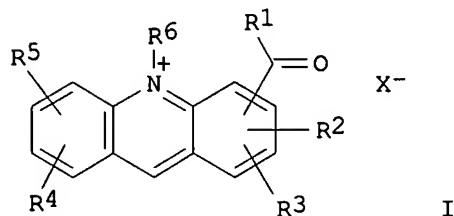
RN 1668-53-7 HCAPLUS

CN 1,3-Benzenediol, 4-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]- (9CI)
 (CA INDEX NAME)



L70 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2002:271799 HCAPLUS
 DN 136:299454
 TI Oxidative hair dyes containing acridine aldehydes and acridine ketones
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.A.a., Germany
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM A61K007-13
 ICS C07D219-02; C09B015-00
 CC 62-3 (Essential Oils and **Cosmetics**)
 Section cross-reference(s): 27
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10047480	A1	20020411	DE 2000-10047480	20000926
PRAI	DE 2000-10047480		20000926		
OS	MARPAT 136:299454				
GI					



AB The invention concerns the synthesis of acridine aldehyde and acridine ketone derivs. and their application in oxidative hair dyes. Compds. of the general formula (I) are defined, where R1 = hydrogen atom, C1-4-Alkyl or group of aryls; R2, R3, R4 and a R5, same or different = a hydrogen atom, halogen atom, a C1-C4-Alkyl, C1-C4-Hydroxyalkyl, C1-C4-Alkoxy, C1-C4-Hydroxyalkoxy, hydroxy group, nitro group, sulfo group, amino group, which can be substituted by C1-C4-Alkyl, or a C1-C4-Acyl, whereby two of the groups can form a condensed arom. ring, whereby the groups of COR1,

R2, R3, R4 and R5 to any ring of the cyclic system; X- an anion, in particular halide, sulfonate, like benzene sulfonate, p-Toluene sulfonate, methanesulfonate or trifluoro methanesulfonate, Me sulfate, Et sulfate, perchlorate, sulfate, hydrogensulfate, **tetrafluoroborate** or tetrachlorozincate, alkanoate, whereby X- is absent if R6 is neg. charged; R6 = hydrogen atom, C1-4-Alkyl, C1-C4-Hydroxyalkyl, C1-C6 carboxyalkyl, C1-C6 sulfoalkyl, C1-4-aralkyl, heteroalkyl, neg. charged oxygen. Thus 9-formyl-10-methylacridinium-p-toluene sulfonate was synthesized from acridine-9-carboxaldehyde and p-toluene sulfonic acid Me ester. The product was used in combination with 3-methyl-p-aminophenol to yield a light brown hair color.

ST oxidative hair dye acridine aldehyde ketone

IT Nitriles, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(arom.; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Amines, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(heterocyclic, N-contg.; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Shampoos

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Caseins, biological studies

Collagens, biological studies

Elastins

Keratins

Protein hydrolyzates

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Proteins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(soy; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindole 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Aniline, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-18-8, L-Glutathione, biological studies 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1, Anthraquinone 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 96-91-3, Picramic acid 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid

99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diamino-diphenyl ether 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triamino pyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-72-9D, Indole, derivs. 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diamino pyridine 142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-76-5, 4-Methoxy phenol 156-81-0, 2,4-Diaminopyrimidine 260-94-6D, Acridine, derivs. 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino pyridine 462-08-8, 3-Amino pyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-15-1D, Indoline, derivs. 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino pyridine 504-29-0, 2-Amino pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenyl amine 553-86-6, Cumaranone 556-03-6, Tyrosine 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-23-5, 1H-Indene-1,3(2H)-dione 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 876-87-9 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Amino-phenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2510-01-2 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluene sulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-p-aminophenol 2871-01-4, HC Red 3 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3301-75-5, Benz[c]acridine-7-carboxaldehyde 3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino pyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino pyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5099-39-8, 2-[2-(Diethylamino)ethylamino]-5-nitroaniline 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-

Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene
 5318-27-4, 6-Aminoindole 5418-63-3, 1,2,3,3-Tetramethyl-3H-
 indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2,
 Rhodanine-3-acetic acid 5850-35-1, Acid blue 29 5930-28-9,
 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid
 6201-65-6, 2-Chlororesorcin 6222-46-4, Palatine chrome green GC
 6247-27-4, Mordant brown 4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-
 naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol
 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
 4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic
 acid disodium salt 6967-12-0, 6-Aminoindazole 7074-03-5 7336-20-1
 7411-49-6, [1,1'-Biphenyl]-3,3',4,4'-tetramine, tetrahydrochloride
 7722-84-1, Hydrogen peroxide, biological studies **7749-47-5**,
 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
 10173-66-7, 1-Amino-4-nitro-2-(2-nitrobenzylideneamino)benzene
 10228-97-4 **13754-19-3**, 4,5-Diaminopyrimidine 14268-66-7,
 3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16859-86-2,
 1,4-Dimethylquinolinium-iodide 16867-03-1, 2-Amino-3-hydroxy-pyridine
 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene
 disulfonic acid 24119-24-2, N,N-Bis-[2-(4-aminophenoxy)ethyl]methylamine
 , trihydrochloride 24905-87-1, HC Red 7 28020-38-4,
 2,3-Diamino-6-methoxypyridine 29705-39-3 31835-64-0,
 3-Amino-3'-nitrobiphenyl 31905-57-4, Nitrophenylenediamine 41927-50-8
 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate
 43093-74-9, Phenol, aminonitro- 46791-37-1 50610-28-1 51387-92-9,
 Phenol, 4-amino-2-[(diethylamino)methyl]- 54381-16-7,
 N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 55302-96-0,
 2-Methyl-5-(2-hydroxyethylamino)-phenol 56932-44-6, HC Yellow 5
 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate
 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluene sulfonate
 61693-42-3, 3-Amino-2,4-dichloro phenol **62496-02-0**,
 2-Methylamino-4,5,6-triamino-pyrimidine 63969-46-0, Bis(5-amino-2-
 hydroxyphenyl)methane 64993-07-3, 5-Amino-6-nitrobenzo-1,3-dioxole
 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 68391-32-2
 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 2,4-
 Diaminophenoxyethanol 74586-24-6 74918-21-1, 1,3-Bis(2,4-
 diaminophenoxy)propane, tetrahydrochloride 77484-77-6,
 3-Amino-6-methylamino-2-nitropyridine 79352-72-0, 4-Amino-2-
 aminomethylphenol 82576-75-8, HC Violet 1 83763-47-7,
 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-
 dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chloro phenol
 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red
 10 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
 2-Methyl-5-amino-4-chloro phenol 110952-48-2, Phenol,
 4-amino-2-[(dimethylamino)methyl]- 113139-13-2, Acridine-1-
 carboxaldehyde 113139-14-3, Acridine-2-carboxaldehyde 113139-15-4,
 Acridine-3-carboxaldehyde 113139-16-5, Acridine-4-carboxaldehyde
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. acridine aldehydes and acridine ketones)
 IT 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4,
 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 126335-41-9,
 2,5-Diaminophenetole 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-2-
 hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-
 propanol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol

144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane,
 tetrahydrochloride 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole
 155758-48-8 159519-79-6, Brenzcatechin 159661-42-4,
 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1, 2,5-Dihydroxy-4-
 morpholinoaniline-dihydrobromide 202525-73-3, 2,4,5-Triaminophenol-
 trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride
 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6,
 2,4,6-Triaminoresorcin-trihydrochloride 202525-77-7 202525-78-8,
 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 211872-02-5
 215377-52-9, 3,4-Methylenediaminoaniline 220118-56-9,
 1,2,3,3-Tetramethyl-3H-indolium-methane sulfonate 223383-77-5,
 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0,
 N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
 phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid
 346593-13-3, 3-Amino-4-nitroacenaphthene 408327-11-7 408327-13-9
 408327-15-1 408327-19-5 408327-21-9 408327-23-1 408327-25-3
 408327-27-5 408327-29-7 408327-31-1 408327-34-4 408327-36-6
 408327-38-8 408327-40-2 408327-45-7 408327-48-0 408327-52-6
 408327-61-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 885-23-4, Acridine-9-carboxaldehyde

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
 (Reactant or reagent); USES (Uses)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 149969-54-0P 408327-08-2P

RL: COS (Cosmetic use); **SPN (Synthetic preparation)**; BIOL
 (Biological study); **PREP (Preparation)**; USES (Uses)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 77-78-1, Dimethyl sulfate 80-48-8, p-Toluene sulfonic acid methyl ester
 138-89-6, N,N-Dimethyl p-nitrosoaniline 611-64-3, 9-Methylacridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 41922-14-9P, 9,10-Dimethylacridinium methylsulfate

RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP**
(Preparation); RACT (Reactant or reagent)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

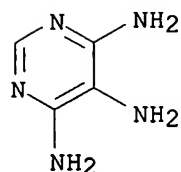
IT 118-70-7, 4,5,6-Triamino pyrimidine

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

RN 118-70-7 HCAPLUS

CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:90516 HCAPLUS

DN 136:139594

TI Topical compositions comprising protected functional thiols

IN Glenn, Robert Wayne; Katritzky, Alan Roy; Block, Eric; Shair, Matthew

David; Ehlis, Thomas; Lupia, Joseph Anthony
 PA USA
 SO U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 478,855.
 CODEN: USXXCO
 DT Patent
 LA English
 IC C07D043-02
 ICM A61K007-42
 NCL 424059000
 CC 62-1 (Essential Oils and **Cosmetics**)
 Section cross-reference(s): 28, 40, 63
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002012639	A1	20020131	US 2001-755817	20010105
	US 6495125	B2	20021217		
	US 6544499	B1	20030408	US 2000-478855	20000107
PRAI	US 1999-115278P	P	19990108		
	US 1999-129453P	P	19990415		
	US 2000-478855	A2	20000107		

OS MARPAT 136:139594

AB A topical compn. for treating amino acid-based substrates, such as hair, fur, or nails, comprises a protected thiol compd. The invention further relates to systems which comprise this protected thiol compd. and an activating mechanism. The protected thiol compds. of the present invention may be used in hair care compns., textile care compns., cosmetic compns., oral care compns., skin care, nail care, laundry care, acne care and animal care compns. Preferred embodiments of the present invention provide a modified UV absorber and a modified antioxidant, methods for making them and compns. comprising them. For example, a UV absorber compn. contained 3-benzotriazol-2-yl-N-(2-bromoethyl)-5-sec-butyl-4-hydroxybenzene sulfonamide (prepn. given) 3.00%, urea 10.00%, cocoamidopropyl betaine 0.80%, isopropanol 50.00%, and water up to 100%. The compn. can be applied simultaneously with a 5% soln. of thioglycolic acid from a kit wherein the treatment soln. and the thioglycolic acid are packaged in sep. chambers of a dual chamber package.

ST thiol prepn antioxidant UV absorber topical; cosmetic hair prepn thiol antioxidant UV absorber

IT Animal

Textiles

(care products; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT Hand

Nail (anatomical)

(fingernail; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT Foot

Nail (anatomical)

(toenail; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT Antioxidants

Cosmetics

Dentifrices

Fur

Hair

Hair preparations

UV stabilizers

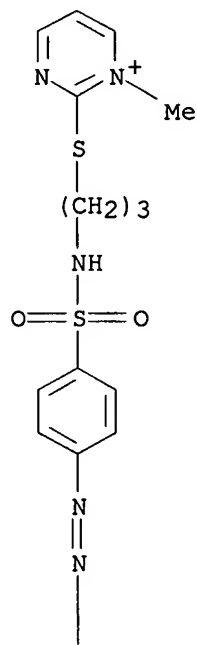
(topical compns. comprising protected functional thiols as UV absorbers

- and antioxidants for amino acid-based substrates)
- IT Amino acids, biological studies
Keratins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
- IT Thiols (organic), biological studies
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**;
USES (Uses)
(topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
- IT Acne
(treatment; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
- IT 83517-25-3P 86763-35-1P **282529-95-7P 282530-02-3P**
282530-06-7P **282530-12-5P** 282530-15-8P 282530-19-2P
282530-23-8P 282530-31-8P 282530-34-1P 282530-38-5P
282530-41-0P 282530-44-3P 282530-45-4P 282530-46-5P 282530-52-3P
282530-65-8P 393185-84-7P 393185-85-8P
393185-86-9P 393185-87-0P
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**;
USES (Uses)
(prepn. of protected functional thiols as UV absorbers and antioxidants)
- IT 60-56-0, 2-Mercapto-1-methylimidazole 75-36-5, Acetyl chloride
96-33-3, Methyl acrylate 100-11-8, 4-Nitrobenzyl bromide 102-52-3,
Malonaldehyde bis(dimethyl acetal) 112-67-4, Palmitoyl chloride
112-82-3, 1-Bromohexadecane 121-60-8, N-Acetylsulfanilyl chloride
135-19-3, 2-Naphthol, reactions 140-89-6 149-91-7, Gallic acid,
reactions 598-52-7, 1-Methyl-2-thiourea 605-65-2, 5-
Dimethylaminonaphthalene-1-sulfonyl chloride 631-67-4,
N,N-Dimethylthioacetamide 694-85-9, 1-Methyl-2-pyridone 2043-53-0,
1-Iodo-1H,1H,2H,2H-perfluorodecane 2576-47-8, 2-Bromoethylamine
hydrobromide 2917-26-2, 1-Hexadecanethiol 5003-71-4,
3-Bromopropylamine hydrobromide 5394-18-3, N-(4-Bromobutyl)phthalimide
24517-45-1, 2-(Methylsulfonyl)ethanethiol 27081-10-3, Tropylium
tetrafluoroborate 33252-63-0, 5-(Trifluoromethyl)-2-pyridinol
50816-19-8, 8-Bromo-1-octanol 282530-04-5 340964-11-6 393185-89-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of protected functional thiols as UV absorbers and antioxidants)
- IT 2044-27-1P 31098-39-2P 73547-86-1P, 1-Methyl-2(1H)-Pyrimidinethione
78234-05-6P 83626-75-9P, 3-(4-Aminophenylsulfonamido)propyl bromide
92647-21-7P 201160-48-7P 282529-99-1P 282530-10-3P 282530-21-6P
282530-25-0P, 8-Bromooctyl gallate 282530-29-4P, 3-Bromopropyl gallate
282530-48-7P 282530-50-1P 393185-88-1P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(prepn. of protected functional thiols as UV absorbers and antioxidants)
- IT **282529-95-7P**
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**;
USES (Uses)
(prepn. of protected functional thiols as UV absorbers and antioxidants)

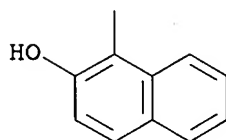
RN 282529-95-7 HCAPLUS

CN Pyrimidinium, 2-[[3-[[[4-[(2-hydroxy-1-naphthalenyl)azo]phenyl)sulfonyl]amino]propyl]thio]-1-methyl-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● Br⁻

L70 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:868163 HCAPLUS

DN 136:10881

TI Hair dyes containing derivatives of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

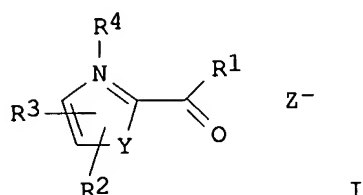
LA German

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001089460	A2	20011129	WO 2001-EP5497	20010515
	WO 2001089460	A3	20020620		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10025672	A1	20011129	DE 2000-10025672	20000524
PRAI	DE 2000-10025672	A	20000524		
OS	MARPAT 136:10881				
GI					



AB The invention concerns hair dyes that contain quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone derivs. of the general formula (I), and a second dye that contains amino or hydroxy groups; the compns. color hair without the addn. of oxidative agents. In formula I R represents a hydrogen atom, a C-C alkyl group, C-C sulfoalkyl group, C-C carboxyalkyl group, aryl group or heteroaryl group, R and R represent a hydrogen atom, halogen atom, a C-C alkyl group, a C-C alkoxy group, a C-C hydroxyalkoxy group, a C-C hydroxyalkyl group, a hydroxy group, a nitro group or an amino group, which can be substituted by C-C alkyl groups that can also form a heterocyclic ring together with the nitrogen atom, whereby the two groups R and R can together form a condensed arom. ring, R represents a C-C alkyl group, C-C alkenyl group, aryl group, aralkyl group, C-C carboxyalkyl group or C-C sulfoalkyl group, Y represents an NR group, whereby R is a C-C alkyl group, aralkyl group or aryl group, an oxygen atom, sulfur atom or an optionally substituted methylene group, and Z- represents an anion, in particular halide, benzene sulfonate, p-toluene sulfonate, methane sulfonate, Me sulfate, Et sulfate, trifluoromethane sulfonate, perchlorate, sulfate, hydrogen sulfate, **tetrafluoroborate** or tetrachlorozincate. The compds. of formula I can also be present as acetals or oximes. Thus 1,3-dimethyl-2-formyl-benzimidazolium methanesulfonate was synthesized from 2-formyl-1-methylbenzimidazole and methanesulfonic acid methylester. The product was used with 3-amino-2-methylamino-6-methoxypyridine for dyeing hair.

ST hair dye quaternized heteroaryl aldehyde ketone

IT Ketones, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(arom., heteroaryl; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT Hair preparations

(dyes; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

- IT pH
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT Acetals
Carbonates, biological studies
Caseins, biological studies
Elastins
Halides
Keratins
Oximes
Phosphates, biological studies
Sulfates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT Aldehydes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(heteroaryl; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(soybean; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT 6247-27-4, Mordant Brown 4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(Mordant Brown 4; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT 346684-81-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(Palatine Chrome Green; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
- IT 50-21-5, Lactic acid, biological studies 56-87-1, L-Lysine, biological studies 59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 63-91-2, L-Phenylalanine, biological studies 64-18-6D, Formic acid, derivs. 64-19-7, Acetic acid, biological studies 67-52-7, Barbituric acid 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 77-92-9, biological studies 79-09-4, Propanoic acid, biological studies 79-14-1, Glycolic acid, biological studies 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-69-4, biological studies 88-74-4, 2-Nitroaniline 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 98-86-2, Acetophenon, biological studies 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid

99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene
 100-01-6, 4-Nitroaniline, biological studies 101-77-9,
 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether
 103-82-2, 2-Phenylacetic acid, biological studies 106-50-3,
 p-Phenylenediamine, biological studies 107-92-6D, Butyric acid, derivs.
 108-45-2, m-Phenylenediamine, biological studies 108-72-5,
 1,3,5-Triaminobenzene 109-00-2, 3-Hydroxypyridine 110-86-1, Pyridine,
 biological studies 110-89-4, Piperidine, biological studies 118-12-7,
 1,3,3-Trimethyl-2-methyleneindoline 118-70-7,
 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6,
 4-Amino-2-nitrophenol 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic
 acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol
 141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5,
 2-Hydroxypyridine 142-62-1, Hexanoic acid, biological studies
 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4,
 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,
 2,4-Diaminopyrimidine 288-32-4, Imidazole, biological studies
 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino-pyridine 462-08-8,
 3-Amino-pyridine 488-87-9, 2,5-Dimethylresorcin 496-73-1,
 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4
 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino-pyridine 504-29-0,
 2-Amino-pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 526-95-4,
 D-Gluconic acid 533-31-3, 3,4-Methylenedioxyphenol 535-75-1,
 Piperidine-2-carboxylic acid 553-86-6, Cumaranone 570-24-1,
 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6,
 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 606-55-3 606-57-5,
 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3,
 2-Methylresorcin 609-20-1, 1,4-Benzenediamine, 2,6-dichloro- 611-98-3,
 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine
 615-71-4, 1,2,4-Triaminobenzene 616-47-7, 1-Methylimidazole 623-09-6,
 4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine 636-25-9,
 2,5-Diaminophenol 934-22-5, 5-Aminobenzimidazole 1004-74-6,
 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-
 triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1123-93-9,
 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1820-80-0,
 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole
 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6,
 2,3-Dimethylbenzothiazolium-p-toluene sulfonate 2785-06-0,
 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, HC Red 3 3131-52-0,
 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
 3167-49-5, 6-Aminonicotinic acid 3769-62-8, Gallion 3855-78-5,
 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino-pyridine 4331-29-7,
 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
 tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino-pyridine
 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2,
 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1,
 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide
 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid
 5850-35-1, Acid blue 29 5930-28-9, 2,6-Dichloro-4-aminophenol
 5959-52-4, 3-Amino-2-naphthoic acid 6126-22-3 6201-65-6,
 1,3-Benzenediol, 2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-
 naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol
 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
 4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic

acid, disodium salt 6967-12-0, 6-Aminoindazole 7336-20-1 7411-49-6
 7429-90-5D, Aluminum, salts 7439-89-6D, Iron, salts 7439-93-2D,
 Lithium, salts 7439-95-4D, Magnesium, salts 7439-96-5D, Manganese,
 salts 7440-09-7D, Potassium, salts 7440-23-5D, Sodium, salts
 7440-24-6D, Strontium, salts 7440-39-3D, Barium, salts 7440-48-4D,
 Cobalt, salts 7440-50-8D, Copper, salts 7440-66-6, Zinc, biological
 studies 7440-70-2D, Calcium, salts 7575-35-1, N,N-Bis(2-hydroxyethyl)-
 p-phenylenediamine **7749-47-5**, 2-Amino-4-methoxy-6-
 methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10173-66-7
13754-19-3, 4,5-Diaminopyrimidine 14268-66-7,
 3,4-Methylenedioxyaniline 15477-76-6D, **Phosphonate**, salts
 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-
 Dimethylquinoliniumiodide 16867-03-1, 2-Amino-3-hydroxy-pyridine
 19335-11-6, 5-Aminoindazole 20103-09-7, 1,4-Benzenediamine,
 2,5-dichloro- **22715-34-0**, 2-Hydroxy-4,5,6-triaminopyrimidine
 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-
 naphthalene disulfonic acid 24119-24-2, N,N-Bis-[2-(4-
 aminophenoxy)ethyl]methylamine-trihydrochloride 24905-87-1, HC Red 7
 28020-38-4, 2,3-Diamino-6-methoxy-pyridine 29539-03-5,
 5,6-Dihydroxyindoline 31835-64-0, 3-Amino-3'-nitrobiphenyl 34572-45-7,
 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene 42952-29-4,
 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluenesulfonate 50610-28-1,
 2-Chloro-5-nitro-N-hydroxyethyl-1,4-phenylenediamine 51387-92-9
 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56932-44-6, HC Yellow
 5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate
 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluenesulfonate
 61693-42-3, 3-Amino-2,4-dichlorophenol **62496-02-0**,
 2-Methylamino-4,5,6-triaminopyrimidine 64993-07-3, 5-Amino-6-nitrobenzo-
 1,3-dioxole 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride
 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 3-Amino-4-(2'-
 hydroxyethyloxy)aniline 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-
 tetrahydrochloride 79352-72-0, 4-Amino-2-aminomethylphenol 80437-28-1
 82576-75-8, HC Violet 1 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85679-78-3,
 3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline
 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red 10
 99803-02-8 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
 2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9,
 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-
 dimethoxybenzene 117907-43-4 128709-79-5 128729-30-6,
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 1,3-Bis(4-aminophenylamino)-2-propanol 136696-43-0 137290-86-9,
 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3,
 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane-tetrahydrochloride
 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1,
 2,5-Dihydroxy-4-morpholinoaniline-dihydrobromide 202525-73-3,
 2,4,5-Triaminophenol-trihydrochloride 202525-74-4,
 Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-
 hexahydrochloride 202525-76-6, 2,4,6-Triaminoresorcin trihydrochloride
 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 215377-52-9,
 3,4-Methylenediaminoaniline 220118-56-9, 1,2,3,3-Tetramethyl-3H-indolium-
 methanesulfonate 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid
 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1,
 2,3-Dichloro-p-phenylenediamine 262853-93-0, Piperidine-3-carboxylic
 acid
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT 346593-13-3 374675-92-0 374675-93-1 374675-94-2 374675-95-3
 374675-96-4 374675-97-5 374675-98-6 374675-99-7 374676-00-3
 374676-01-4 374676-02-5 374676-03-6 374676-04-7
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT 374675-90-8P 374675-91-9P
 RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

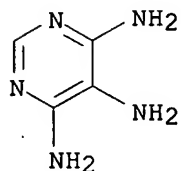
IT 66-27-3, Methanesulfonic acid methylester 3012-80-4, 1-Methyl-2-formylbenzimidazole
 RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT 118-70-7, 4,5,6-Triaminopyrimidine
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

RN 118-70-7 HCAPLUS
 CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:730522 HCAPLUS
 DN 135:293677
 TI Stable alkaline hair bleaching compositions and method for use thereof
 IN Dias, Louis Carlos
 PA The Procter + Gamble Company, USA
 SO PCT Int. Appl., 73 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K007-135
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072272	A2	20011004	WO 2001-US9235	20010323
	WO 2001072272	A3	20020523		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,				

KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
 TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6540791 B1 20030401 US 2000-537451 20000327

PRAI US 2000-537451 A 20000327

AB An alk. hair bleaching compn. comprising (a) from about 0.01 to about 12, by wt., of at least one oxidizing agent; (b) from about 0.2 to about 20, by wt., of a buffering system, present in an amt. sufficient to generate a pH of the compn. in the range from about 5 to about 11, wherein said buffering system comprises at least one pH modifying ingredient selected from the group consisting of (i) borates buffers, (ii) alkalizing agents, and mixts. thereof; (c) from about 150 ppm to about 5,000 ppm of at least one stabilizer; and (d) from about 0.01 to about 50, by wt., of at least one hair care ingredient selected from the group consisting of (i) surfactants, (ii) catalysts, (iii) thickeners, (iv) conditioners, and mixts. thereof. A hair bleaching and coloring compn. contained hydrogen peroxide 3, disodium tetraborate decahydrate 0.5, cyclohexane-1,2-diaminotetrakisphosphonic acid 0.1, PEG-2 hydrogenated tallow amine 0.3, cetearyl alc. 5, water and minors q.s. 100.

ST stability alk hair bleach color oxidant

IT Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(3-[(2-aminoethyl)amino]-2-methylpropyl Me, di-Me, Q 2-8220; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes

(basic; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations

(bleaches; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations

(conditioners; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes

(direct, cationic; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations

(dyes, oxidative; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations

(dyes; stable alk. hair bleaching compns. and method for use thereof)

IT Logwood (Haematoxylon campechianum)

(ext.; stable alk. hair bleaching compns. and method for use thereof)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(heterocyclic; stable alk. hair bleaching compns. and method for use thereof)

IT Walnut

(hull; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes

(nitro; stable alk. hair bleaching compns. and method for use thereof)

IT Gall (plant tumor)

(nutgall; stable alk. hair bleaching compns. and method for use thereof)

- thereof)
- IT Phosphates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(org.; stable alk. hair bleaching compns. and method for use thereof)
- IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(polycarboxylic acid esters; stable alk. hair bleaching compns. and
method for use thereof)
- IT Anthraquinone dyes
Azo dyes
Buffers
Catalysts
Chamaemelum nobile
Chamomile
Indigofera
Lawsonia inermis
Lawsonia inermis alba
Oxidizing agents
Stabilizing agents
Surfactants
Thickening agents
(stable alk. hair bleaching compns. and method for use thereof)
- IT Alkali metal hydroxides
Alkali metals, biological studies
Borates
Enzymes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(stable alk. hair bleaching compns. and method for use thereof)
- IT Dyes
(vat; stable alk. hair bleaching compns. and method for use thereof)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 83-72-7, 2-Hydroxy-1,4-naphthoquinone
87-66-1, Pyrogallol 89-25-8 90-15-3, 1-Naphthol 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, o-Aminophenol 95-70-5,
p-Toluenediamine 95-88-5, 4-Chlororesorcinol 101-54-2,
N-Phenyl-p-phenylenediamine 106-50-3, p-Phenylenediamine, biological
studies 107-43-7D, Betaine, cocamidopropyl derivs. 108-26-9
108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcinol,
biological studies 119-34-6, 4-Amino-2-nitrophenol 123-30-8,
p-Aminophenol 141-43-5, Monoethanolamine, biological studies 506-87-6,
Ammonium carbonate 520-36-5, 4',5,7-Trihydroxyflavone 533-31-3,
3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 591-27-5
608-25-3, 2-Methylresorcinol 609-21-2, 4-Amino-2,6-dibromophenol
612-76-0, m-Diphenol 615-05-4, 2,4-Diaminoanisole **1004-74-6**,
2,4,5,6-Tetraaminopyrimidine 1066-33-7, Ammonium hydrogen carbonate
1066-51-9, Aminomethylene phosphonic acid 1066-51-9D, Aminomethylene
phosphonic acid, water-sol. salts 1303-96-4, Disodium tetraborate
decahydrate 1310-73-2, Sodium hydroxide, biological studies 1336-21-6,
Ammonium hydroxide 2044-64-6, N,N-Dimethyl acetoacetamide 2235-46-3,
N,N-Diethyl acetoacetamide 2628-69-5 2749-59-9 **2809-21-4D**,
alkali metal derivs. 2835-95-2, 4-Amino-2-hydroxytoluene 2835-99-6,
3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 5307-00-6,
2-Methyl-5-methoxy-p-phenylenediamine 5307-02-8, 2,5-Diaminoanisole
5307-14-2, Nitro-p-phenylenediamine 5930-28-9, 4-Amino-2,6-
dichlorophenol 6419-19-8, Nitrilotrimethylene phosphonic acid
7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7439-96-5D, Manganese, salts,

biological studies 7440-02-0D, Nickel, salts, biological studies
 7440-22-4D, Silver, salts, biological studies 7440-48-4D, Cobalt, salts,
 biological studies 7440-50-8D, Copper, salts, biological studies
 7440-69-9D, Bismuth, salts, biological studies 7575-35-1,
 N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 9000-92-4, Amylase
 9001-62-1, Lipase 9001-92-7, Protease 9003-99-0, Peroxidase
 9012-54-8, Cellulase 9013-79-0, Esterase 9031-11-2, Lactase
 9032-75-1, Pectinase 9055-15-6, Oxidoreductase 16867-03-1,
 2-Amino-3-hydroxypyridine 25620-59-1, Aminoanthraquinone 27522-09-4,
 Ammonium borate 29757-24-2 43093-74-9, Nitroaminophenol 44170-50-5D,
 Ethylene triamine, hydroxyethyl derivs. 51377-41-4, Cutinase
 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 66566-48-1
 68651-46-7, Indigo (dye) 73793-80-3, 2,5-Diaminobenzyl alcohol
 80498-15-3, Laccase 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane
 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 126596-25-6 233265-18-4, aculyn 46
 364050-36-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(stable alk. hair bleaching compns. and method for use thereof)

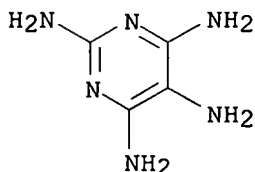
IT 1004-74-6, 2,4,5,6-Tetraaminopyrimidine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(stable alk. hair bleaching compns. and method for use thereof)

RN 1004-74-6 HCAPLUS

CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:730521 HCAPLUS

DN 135:293676

TI Stable alkaline hair bleaching and coloring compositions and method for
 use thereof

IN Dias, Louis Carlos

PA The Procter + Gamble Company, USA

SO PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-135

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072271	A2	20011004	WO 2001-US9213	20010323
	WO 2001072271	A3	20020321		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI,

FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
 TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-537452 A 20000327

AB An alk. hair bleaching and coloring compn. comprising: (a) from about 0.01 to about 12, by wt., of at least one oxidizing agent; (b) from about 0.2 to about 20, by wt., of a buffering system, present in an amt. sufficient to generate a pH of the compn. in the range from about 5 to about 11, wherein said buffering system comprises at least one pH modifying ingredient selected from the group consisting of (i) borates buffers, (ii) alkalizing agents, and mixts. thereof; (c) from about 150 ppm to about 5,000 ppm of at least one stabilizer; and (d) from about 0.001 to about 5, by wt., of at least one hair coloring agent. A hair bleaching and coloring compn. contained hydrogen peroxide 3, disodium tetraborate decahydrate 0.5, cyclohexane-1,2-diaminotetrakisphosphonic acid 0.1, alkyl dimethylamine oxide 0.3, cetearyl alc. 5, HC Red No. 3 0.3, HC Red No. 2 0.1, water and minors q.s. 100.

ST stability alk hair bleach color oxidant

IT Polysiloxanes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(3-[(2-aminoethyl)amino]-2-methylpropyl Me, di-Me, Q 2-8220; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes

(basic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations

(bleaches; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations

(conditioners; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes

(direct, cationic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations

(dyes, oxidative; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations

(dyes; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Logwood (Haematoxylon campechianum)

(ext.; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(heterocyclic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Walnut

(hull; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes

- (nitro; stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Gall (plant tumor)
(nutgall; stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Phosphates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(org.; stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polycarboxylic acid esters; stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Anthraquinone dyes
Azo dyes
Buffers
Catalysts
Chamaemelum nobile
Chamomile
Indigofera
Lawsonia inermis
Lawsonia inermis alba
Oxidizing agents
Stabilizing agents
Surfactants
Thickening agents
(stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Alkali metal hydroxides
Alkali metals, biological studies
Borates
Enzymes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT Dyes
(vat; stable alk. hair bleaching and coloring compns. and method for use thereof)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 83-72-7, 2-Hydroxyl,4-naphthoquinone
87-66-1, Pyrogallol 89-25-8 90-15-3, 1-Naphthol 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, o-Aminophenol 95-70-5,
p-Toluenediamine 95-88-5, 4-Chlororesorcinol 101-54-2,
N-Phenyl-p-phenylenediamine 106-50-3, p-Phenylenediamine, biological studies 108-26-9 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcinol, biological studies 119-34-6, 4-Amino-2-nitrophenol 123-30-8, p-Aminophenol 141-43-5, monoethanolamine, biological studies 506-87-6, ammonium carbonate 520-36-5, 4',5,7-Trihydroxyflavone 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 591-27-5 608-25-3, 2-Methylresorcinol 609-21-2, 4-Amino-2,6-dibromophenol 612-76-0, m-Diphenol 615-05-4, 2,4-Diaminoanisole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1066-33-7, ammonium hydrogen carbonate 1066-51-9, Aminomethylene phosphonic acid 1066-51-9D, Aminomethylene phosphonic acid, water-sol. salts 1303-96-4, Disodium tetraborate decahydrate 1310-73-2, sodium hydroxide, biological studies 1336-21-6, ammonium hydroxide 2044-64-6, N,N-

Dimethylacetoacetamide 2235-46-3, N,N-Diethylacetoacetamide 2628-69-5
 2749-59-9 **2809-21-4D**, alkali metal derivs. 2835-95-2,
 4-Amino-2-hydroxytoluene 2835-99-6, 3-Methyl-4-aminophenol 5307-00-6,
 2-Methyl-5-methoxy-p-phenylenediamine 5307-02-8, 2,5-Diaminoanisole
 5307-14-2, Nitro-p-phenylenediamine 5930-28-9, 4-Amino-2,6-
 dichlorophenol 6419-19-8, Nitrilotrimethylenephosphonic acid
 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7439-96-5D, Manganese, salts,
 biological studies 7440-02-0D, Nickel, salts, biological studies
 7440-22-4D, silver, salts, biological studies 7440-48-4D, Cobalt, salts,
 biological studies 7440-50-8D, Copper, salts, biological studies
 7440-69-9D, Bismuth, salts, biological studies 7575-35-1 7722-84-1,
 Hydrogen peroxide, biological studies 9000-92-4, amylase 9001-62-1,
 lipase 9001-92-7, protease 9003-99-0, peroxidase 9012-54-8,
 cellulase 9013-79-0, Esterase 9031-11-2, lactase 9032-75-1,
 pectinase 9055-15-6, Oxidoreductase 16867-03-1, 2-Amino-3-
 hydroxypyridine 25620-59-1, Aminoanthraquinone 27522-09-4, ammonium
 borate 29757-24-2 43093-74-9, Nitroaminophenol 44170-50-5D, Ethylene
 triamine, hydroxyethyl derivs. 51377-41-4, cutinase 55302-96-0
 66566-48-1 68651-46-7, Indigo (dye) 73793-80-3, 2,5-Diaminobenzyl
 alcohol 80498-15-3, laccase 81892-72-0, 1,3-Bis(2,4-
 diaminophenoxy)propane 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
 84540-50-1 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 126596-25-6
 364050-36-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(stable alk. hair bleaching and coloring compns. and method for use
 thereof)

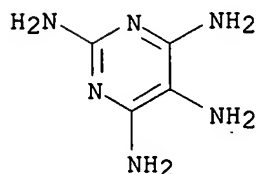
IT **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(stable alk. hair bleaching and coloring compns. and method for use
 thereof)

RN 1004-74-6 HCAPLUS

CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:721024 HCAPLUS

DN 136:38774

TI The stability of monochlorotriazinyl reactive dyes on cellulose films in
 aqueous alkaline solutions containing peroxide bleaching agents

AU Sugane, A.; Watanabe, A.; Okada, Y.; Morita, Z.

CS School of Domestic Science, Otsuma Women's University, Sanban-cho,
 Chiyoda-ku, Tokyo, 102-8357, Japan

SO Dyes and Pigments (2001), 50(3), 223-241

CODEN: DYPIDX; ISSN: 0143-7208

PB Elsevier Science Ltd.

DT Journal

LA English

- CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 41, 43
- AB The stability of seven reactive (one difluoromonochloropyrimidinyl and six monochlorotriazinyl) dyes on cellophane immersed in sodium **peroxoborate** (PB) soln. (UK-TO soln.) contg. tetraacetylenediamine (TAED) was examd. at 60 .degree.C. The extent of dye loss that occurred from the dyed cellulosic films which were immersed in the UK-TO soln. without detergent correlated closely to the ratings obtained using the BS 1006 UK-TO wash test. The dye loss was attributed to three factors, namely, alk. hydrolysis of dye-fiber bonds, oxidative fading of the dye **chromophore** by peroxides, and cellulose degrdn. accelerated by PB and TAED. The alk. hydrolysis of the dye-fiber bond and the extent of cellulose degrdn. in the UK-TO soln. were the main contributions to the dye loss; dye oxidn. was a minor factor in the dye loss mechanism. The phys. bonding of the dye mols. reinforced the covalent dye-fiber bond stability towards the UK-TO soln.
- ST reactive dye cellophane alk peroxide bleach resistance; oxidative fading hydrolysis chlorotriazine reactive dye cellulose
- IT Reactive dyes
(chlorotriazine; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT Bleaching
Hydrolysis
Oxidation catalysts
(in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT Bleaching agents
(peroxide; stability of reactive dyes on cellophane in aq. alk. solns. contg.)
- IT Fading
(photochem., oxidative; in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT Cellophane
(stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 10543-57-4, TAED
RL: CAT (Catalyst use); USES (Uses)
(bleach activator; in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 79-21-0, Peracetic acid 7722-84-1, Hydrogen peroxide, uses 10486-00-7, Sodium **perborate** tetrahydrate
RL: TEM (Technical or engineered material use); USES (Uses)
(bleaching agent; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 12236-82-7, C.I. Reactive blue 2 16823-51-1, C.I. Reactive blue 5
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blue dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 85631-95-4
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blue dye; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 70224-59-8
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

- (brown dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 633-96-5, C.I. Acid Orange 7
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (orange dye; stability of dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 23211-47-4, C.I. Reactive Red 3 61951-82-4, C.I. Reactive Red 120
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (red dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 68959-17-1
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (red dye; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- IT 6539-67-9, C.I. Reactive Yellow 3
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (yellow dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Adams, C; Polyhedron 1983, V2, P673 HCAPLUS
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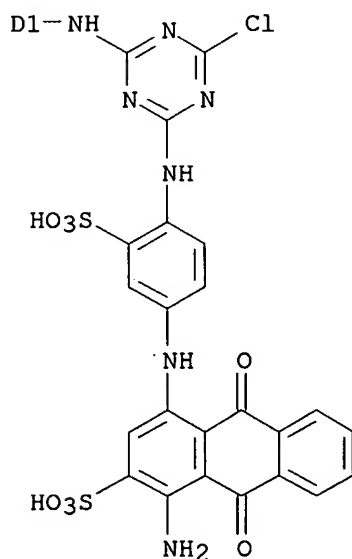
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- IT 12236-82-7, C.I. Reactive blue 2
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (blue dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)
- RN 12236-82-7 HCAPLUS
 CN 2-Anthracenesulfonic acid, 1-amino-4-[[4-[[4-chloro-6-[[3(or 4)-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (9CI) (CA INDEX NAME)

PAGE 1-A



D1-SO₃H

PAGE 2-A



AN 2001:693046 HCAPLUS
 DN 135:277730
 TI Preparation containing quinoxaline derivatives
 IN Pfluecker, Frank; Driller, Hansjuergen; Kirschbaum, Michael; Scholz,
 Volker; Neunhoeffler, Hans
 PA Merck Patent G.m.b.H., Germany
 SO PCT Int. Appl., 117 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-42
 ICS A61K007-44
 CC 62-4 (Essential Oils and **Cosmetics**)
 Section cross-reference(s): 28, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001068047	A2	20010920	WO 2001-EP2517	20010306
	WO 2001068047	A3	20020307		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	DE 10013318	A1	20010920	DE 2000-10013318	20000317
	EP 1267819	A2	20030102	EP 2001-909822	20010306
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	DE 2000-10013318	A	20000317		
	WO 2001-EP2517	W	20010306		
OS	MARPAT 135:277730				
AB	The invention relates to the use of quinoxaline derivs. as photostable UV filters in cosmetic and pharmaceutical preps. for protecting the human epidermis or human hair against UV radiation, esp. in the 280-400 nm range.				
ST	quinoxaline deriv photostable UV filter cosmetic				
IT	Optical filters (UV; preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)				
IT	Skin (epidermis, protection of; preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)				
IT	Cosmetics Drug delivery systems (gels; preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)				
IT	Antioxidants Cosmetics Drugs Photoprotectants Sunscreens Suntanning agents (preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)				

IT Hair
(protection of; preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT Cosmetics
Drug delivery systems
(sprays; preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 362607-57-6
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **361389-93-7P**
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **7065-92-1 34117-90-3**
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **4595-94-2P 361389-92-6P 361389-94-8P 361389-95-9P 361389-96-0P**
RL: BUU (Biological use, unclassified); PRP (Properties); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 118-56-9 131-57-7 **1504-78-5 2213-63-0** 5466-77-3
6197-30-4 **6323-89-3 6640-47-7**, 2,3-Quinoxalinediamine
13481-33-9 17911-93-2 21245-02-3 **25871-18-5**
27503-81-7, 2-Phenylbenzimidazole-5-sulfonic acid **27739-37-3**,
2,2'-Biquinoxaline **35552-76-2 36818-07-2**
36856-91-4 49679-45-0 50652-76-1 56404-42-3
62294-86-4 63250-25-9 70356-09-1 **75163-15-4**
75163-16-5 75470-77-8 83451-39-2
84199-29-1 96702-03-3, Ectoin 97065-23-1 **99565-84-1**
100962-02-5 101101-68-2 101576-66-3
112080-12-3 117764-56-4 127376-18-5 127376-24-3
128499-91-2 143076-31-7 156967-94-1
199275-08-6 205114-37-0 213467-54-0 361389-97-1
361390-03-6 361390-04-7 361390-05-8
361390-06-9 361390-07-0 361390-08-1
361390-09-2 361390-10-5 361390-11-6
361390-12-7 361390-13-8 361390-14-9
361390-15-0 361390-16-1 361390-17-2
361390-18-3 361390-19-4 361390-20-7
361390-21-8 361390-22-9 361390-23-0 **361390-24-1**
361390-25-2 361390-26-3 361390-27-4
361390-28-5 361390-29-6 361390-30-9
361390-31-0 361390-32-1 361390-33-2
361390-34-3 361390-35-4 361390-36-5
361390-37-6 361390-38-7 361390-39-8

361390-40-1 361390-41-2 361390-42-3
 361390-43-4 361390-44-5 361390-45-6
 361390-46-7 362518-85-2 362518-86-3
 362518-87-4

RL: BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 102730-20-1P 361389-99-3P 361390-00-3P
 361390-01-4P 361390-02-5P 362526-04-3P
 362526-05-4P 362526-06-5P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 91-19-0D, Quinoxaline, derivs.

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 56-91-7, 4-Aminomethylbenzoic acid 75-77-4, Trimethylchlorosilane, reactions 90-04-0, 2-Aminoanisole 93-97-0, Benzoic acid anhydride 98-88-4, Benzoylchloride 109-12-6, 2-Aminopyrimidine 110-86-1, Pyridine, reactions 121-69-7, N,N-Dimethylaniline, reactions 150-13-0, 4-Aminobenzoic acid 363-81-5, 2,4,6-Trifluoroaniline 824-79-3, Sodium p-toluene sulfinate 1118-89-4 1448-87-9, 2-Chloroquinoxaline 1571-08-0, Methyl 4-formylbenzoate 2835-77-0, 2-Aminobenzophenone 2942-58-7, Diethylcyanophosphonate 4333-62-4, 1,3-Dimethylimidazolium iodide 5653-40-7, 2-Amino-4,5-dimethoxybenzoic acid 7677-24-9, Trimethylsilylcyanoide 18144-43-9, Isopropyl 4-Aminobenzoate 24313-88-0, 3,4,5-Trimethoxyaniline 25265-76-3, Phenylenediamine 25594-62-1, 2-Acetylquinoxaline 89343-06-6, Triisopropylsilylacetylene 100060-92-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 1825-64-5P 361389-98-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

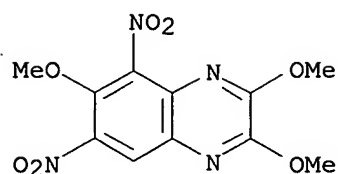
IT 361389-93-7P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); PREP (Preparation); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preps. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

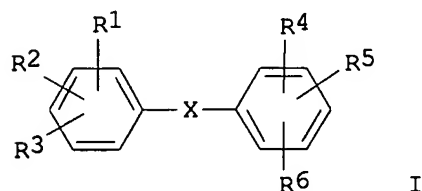
RN 361389-93-7 HCAPLUS

CN Quinoxaline, 2,3,6-trimethoxy-5,7-dinitro- (9CI) (CA INDEX NAME)



L70 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:479141 HCAPLUS
 DN 135:81809
 TI Hair dyeing preparations containing methylquinoline derivs.
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM A61K007-13
 ICS C07D215-10
 CC 62-3 (Essential Oils and **Cosmetics**)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19962875	A1	20010628	DE 1999-19962875	19991224
	WO 2001047483	A1	20010705	WO 2000-EP12816	20001215
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1239817	A1	20020918	EP 2000-990772	20001215
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 1999-19962875	A	19991224		
	WO 2000-EP12816	W	20001215		
OS	MARPAT 135:81809				
GI					



AB The invention concerns the usage of methylquinoline derivs. [(I), R groups are defined] in hair dyeing prepn. Thus 4-formyl-1-methylquinoline-p-toluene sulfonate was prepd. from quinoline-4-carboxaldehyde and toluene sulfonic acid Me ester and used in component A of a two-component hair dye cream. Component A contained (wt./wt.%): 4-formyl-1-methylquinoline-p-toluene 3.61; Natrosol HD250 (hydroxyethyl cellulose) 2.00; water 94.39. Component B contained (wt./wt.%): Texapon NSO 13.00; tallow fatty alc. 4.25; Lorol 1.0; ascorbic acid 0.1; sodium sulfite 0.1;

N,N-bis(2-hydroxyethyl)-p-phenylene diamine 2.94; ammonia (25%) to pH 6.20. The mixt. of the two components resulted on the hair a deep violet shade.

ST hair dyeing prepn methylquinoline deriv

IT Dyes

(direct, hair; hair dyeing prepn. contg. methylquinoline derivs.)

IT Hair preparations

(dyes, oxidative; hair dyeing prepn. contg. methylquinoline derivs.)

IT Oxidizing agents

(hair dyeing prepn. contg. benzofurazan derivs.)

IT Carbonates, biological studies

Halides

Phosphates, biological studies

Sulfates, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing prepn. contg. benzofurazan derivs.)

IT 50-21-5D, Lactic acid, salts 56-87-1, L-Lysine, biological studies
59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4,
L-Tyrosine, biological studies 62-53-3D, Aniline, derivs. 63-91-2,
L-Phenylalanine, biological studies 64-18-6D, Formic acid, salts,
biological studies 64-19-7D, Acetic acid, salts, biological studies
65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-26-8,
Ornithine 71-00-1, L-Histidine, biological studies 73-22-3,
L-Tryptophane, biological studies 74-79-3, L-Arginine, biological
studies 77-32-7 77-92-9, Citric acid, biological studies 77-92-9D,
Citric acid, salts 79-09-4D, Propionic acid, salts 79-14-1D, salts
83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene
87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1,
Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4,
2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1,
2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxy phenol 90-15-3,
1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid
92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 4-Chlororesorcin 98-37-3,
3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological
studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4,
4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid
106-51-4, Quinone, biological studies 107-92-6D, Butyric acid, salts
108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2,
3-Hydroxypyridine 109-52-4D, Valeric acid, salts 110-85-0,
Piperazine, biological studies 110-86-1, Pyridine, biological studies
110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-
methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3,
2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0,
4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene
sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-75-1,
Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide
141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5,
2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts 147-85-3, L-Proline,
biological studies 149-91-7, Gallic acid, biological studies 150-13-0,
4-Aminobenzoic acid 150-19-6, 3-Methoxy phenol 150-76-5, 4-Methoxy
phenol 156-81-0, 2,4-Diamino pyrimidine 288-13-1, Pyrazole
288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole
452-58-4, 2,3-Diamino-pyridine 462-08-8, 3-Amino-pyridine 480-66-0
488-87-9, 2,5-Dimethylresorcin 496-73-1 498-94-2, Piperidine-4-

carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5,
 4-Amino-pyridine 504-29-0, 2-Amino-pyridine 517-22-6,
 2,4-Dimethyl-3-ethylpyrrol e 533-31-3, 3,4-Methylenedioxyphenol
 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid
 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, Cumaranone 570-24-1,
 1-Amino-2-methyl-6-nitrobenzene 578-66-5, 8-Aminoquinoline 580-17-6,
 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
 2,7-Dihydroxynaphthalene 603-81-6, 2,3-Diaminobenzoic acid 606-55-3
 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2,
 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3,
 4,4'-Diaminobenzophenone 615-71-4, 1,2,4-Triaminobenzene 616-45-5,
 Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic
 acid 626-64-2, 4-Hydroxypyridine 876-87-9 934-22-5,
 5-Aminobenzimidazole 1004-74-6, Pyrimidinetetramine 1123-55-3,
 7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3,
 4-Amino-phenylacetic acid 1344-28-1D, Alumina, salts 1571-72-8,
 3-Amino-4-hydroxybenzoic acid 1953-54-4, 5-Hydroxyindole 2380-84-9,
 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole
 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluenesulfonate 2785-06-0,
 2,3-Dimethylbenzothiazoliumiodide 2871-01-4, 2-Nitro-4-amino-1-(2-
 hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
 3715-17-1D, Tartrate, salts, biological studies 3855-78-5,
 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino-pyridine 4331-29-7,
 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
 tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino-pyridine
 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride
 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2,
 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1,
 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide
 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid
 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic
 acid 6201-65-6, 1,3-Benzenediol, 2-chloro- 6259-50-3,
 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6399-72-0,
 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7439-89-6D,
 Iron, salts, biological studies 7439-93-2D, Lithium, salts, biological
 studies 7439-95-4D, Magnesium, salts, biological studies 7439-96-5D,
 Manganese, salts, biological studies 7440-09-7D, Potassium, salts,
 biological studies 7440-23-5D, Sodium, salts, biological studies
 7440-24-6D, Strontium, salts, biological studies 7440-39-3D, Barium,
 salts, biological studies 7440-48-4D, Cobalt, salts, biological studies
 7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts,
 biological studies 7440-70-2D, Calcium, salts, biological studies
 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7,
 2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diamino-pyrimidine
 15477-76-6D, Phosphonate, salts 16082-33-0,
 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxy-pyridine 19335-11-6,
 5-Aminoindazole 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine
 23244-87-3, 2,4,5-Triamino-pyridine 23894-07-7, 3,6-Dihydroxy-2,7-
 naphthalene disulfonic acid 24119-24-2, N,N-Bis[2-(4-
 aminophenoxy)ethyl]methylamine-trihydrochloride 24144-00-1,
 1,4-Dimethyl-quinaldinium-iodide 28020-38-4, 2,3-Diamino-6-methoxy-
 pyridine 29539-03-5, 5,6-Dihydroxyindoline 41927-50-8 42952-29-4,
 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 50610-28-1
 53666-79-8, 3-Amino-1H-pyrazol-5-ol 58480-17-4, 1,2-Dimethylnaphtho[1,2-

d]thiazolium-p-toluene sulfonate 61224-35-9 **62496-02-0**,
 2-Methylamino-4,5,6-triamino-pyrimidine 66635-40-3, 4,4'-Diaminostilbene-
 dihydrochloride 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-
 tetrahydrochloride 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole
 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 85679-78-3,
 3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline
87814-15-1 90817-34-8, 3-Amino-2-methylamino-6-methoxy-pyridine
 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 128729-30-6
 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 144644-13-3
 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-73-3,
 2,4,5-Triaminophenol-trihydrochloride 202525-74-4,
 Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-
 hexahydrochloride 202525-76-6 202525-77-7 202525-78-8,
 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 220118-56-9
 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 223398-08-1
 262853-93-0, Piperidine-3-carboxylic acid
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. contg. benzofurazan derivs.)

IT 223398-02-5P

RL: BUU (Biological use, unclassified); **SPN (Synthetic
 preparation)**; BIOL (Biological study); **PREP (Preparation)**;
 USES (Uses)

(hair dyeing preps. contg. benzofurazan derivs.)

IT 4363-93-3, Quinoline-4-carboxaldehyde 28804-47-9, Toluene sulfonic acid
 methyl ester

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dyeing preps. contg. benzofurazan derivs.)

IT 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6,
 2-Aminophenol 95-70-5 106-50-3, p-Phenylenediamine, biological studies
 108-45-2, m-Phenylenediamine, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 615-66-7,
 2-Chloro-p-phenylenediamine 623-09-6, 4-Methylaminoaniline 636-25-9,
 2,5-Diaminophenol 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6,
 3-Methyl-4-aminophenol 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-
 phenylenediamine 14268-66-7, 3,4-Methylenedioxyaniline 19155-86-3,
 5-Chlorobenzofurazan 20103-09-7, 2,5-Dichloro-p-phenylenediamine
 27601-00-9D, Methylquinoline, derivs. 51387-92-9 55302-96-0,
 2-Methyl-5-(2-hydroxyethylamino)phenol 61693-42-3, 3-Amino-2,4-
 dichlorophenol 70643-19-5 79352-72-0, 4-Amino-2-aminomethylphenol
 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 94897-05-9, 4,6-Dichlorobenzofuroxan
 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
 2-Methyl-5-amino-4-chlorophenol 126335-41-9 137290-86-9,
 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 202525-71-1
 215377-52-9, 3,4-Methylenediaminoaniline 260981-02-0,
 N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
 phenylenediamine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. contg. methylquinoline derivs.)

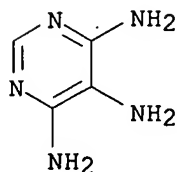
IT **118-70-7**, 4,5,6-Triaminopyrimidine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. contg. benzofurazan derivs.)

RN 118-70-7 HCAPLUS

CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:265510 HCAPLUS
 DN 134:282127
 TI Reactive dye compounds, their production and their use
 IN Lewis, David Malcolm; He, Dong Wei; Yousaf, Taher Iqbal; Genain, Gilles
 Yves Marie Fernand
 PA The Procter & Gamble Company, USA
 SO PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C09B062-022
 ICS D06P003-00; D06P001-38; C09B062-78
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40, 45, 62

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025337	A1	20010412	WO 2000-US26974	20000929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1218452	A1	20020703	EP 2000-967176	20000929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003511510	T2	20030325	JP 2001-528496	20000929
PRAI GB 1999-23329	A	19991001		
WO 2000-US26974	W	20000929		
OS MARPAT 134:282127				
AB A reactive dye compd. comprises: (a) at least one chromophore moiety; (b) at least one nitrogen-contg. heterocycle; (c) a linking group to link each chromophore moiety to each nitrogen-contg. heterocycle; characterized in that at least one nitrogen-contg. heterocycle is substituted with at least one Y group wherein Y is a phosphonate or a borate deriv. The compds. herein have high exhaustion, fixation, and high efficiency values and show significant improvements in terms of reducing spent dye in effluent, increasing dye affinity to the substrate, increasing the dye-substrate covalent bonding, increasing the ability to dye substrates				

at room temp., decreasing the amt. of dye removed during the soaping off process, and reducing the staining of adjacent white fabrics. In addn., these dye compds. provide more intense dyeings and require lower levels of salt for dyeing **cotton** substrates. In an example, Procion Yellow MX-3R was treated with Briquest DAPA 60A (acetodiphosphonic acid) to give a bright yellow dye for application to **cotton**.

ST acetodiphosphonic acid treated reactive dye **cotton**

IT **Hair** preparations

(dyes; prodn. of acetodiphosphonic acid-treated dyes reactive dyes)

IT **Textiles**

(**polyamide-wool**; reactive dyeing with acetodiphosphonic acid-treated dyes)

IT Reactive dyes

(prodn. of reactive dyes with improved application and use properties)

IT **Cotton** fibers

Hair

Leather

Silk

Wool

(reactive dyeing with acetodiphosphonic acid-treated dyes)

IT **Polyamide** fibers, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(reactive dyeing with acetodiphosphonic acid-treated dyes)

IT **246220-97-3DP**, Drimalan Yellow FR, reaction products with acetodiphosphonic acid

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(deep yellow dye; prodn. of reactive dyes with improved application and use properties)

IT **2809-21-4DP**, Briquest ADPA 60A, reaction products with nitrogen heterocycle-contg. reactive dyes

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(dyes; prodn. of reactive dyes with improved application and use properties)

IT **204995-91-5DP**, Levafix Golden Yellow E-G, reaction products with acetodiphosphonic acid

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(orange-yellow dye; prodn. of reactive dyes with improved application and use properties)

IT **83929-91-3DP**, Procion Yellow MX-3R, reaction products with acetodiphosphonic acid

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(yellow dye; prodn. of reactive dyes with improved application and use properties)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Antwerp William Peter van; WO 9719188 A 1997 HCAPLUS

(2) Ciba Geigy Ag; GB 1414420 A 1975 HCAPLUS

(3) Crabtree, A; US 4139345 A 1979 HCAPLUS

(4) Gluesenkamp, K; DE 19645601 A 1998 HCAPLUS

(5) Plant, D; US 4092478 A 1978

(6) Unilever Ltd; CA 771632 A 1967

IT **246220-97-3DP**, Drimalan Yellow FR, reaction products with acetodiphosphonic acid

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered

material use); **PREP (Preparation)**; USES (Uses)

(deep yellow dye; prodn. of reactive dyes with improved application and use properties)

RN 246220-97-3 HCAPLUS

CN Drimalan Yellow F-R (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L70 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:115124 HCAPLUS

DN 134:183272

TI Quaternized azafluorenones for dyeing hair fibers

IN Moller, Hinrich; Oberkobusch, Doris; Hoffkes, Horst

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA German

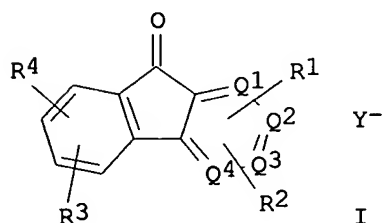
IC ICM C07D221-06

ICS A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001010840	A1	20010215	WO 2000-EP7226	20000727
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19937301	A1	20010215	DE 1999-19937301	19990806
	EP 1198457	A1	20020424	EP 2000-958303	20000727
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI	DE 1999-19937301	A	19990806		
	WO 2000-EP7226	W	20000727		
OS	MARPAT 134:183272				
GI					



AB Hair dyeing compns. contain quaternized azafluorenones (I, where R1, R2, R3 and R4 = e.g., H, halo, C1-4 alkyl or alkoxy group or hydroxyalkoxy, OH, NO2 NH2; Q1, Q2, Q3 and Q4, in total, represent 3 C atoms and a quaternary nitrogen atom which carries C1-4 alkyl or hydroxyalkyl or carboxyalkyl or sulfoalkyl groups, aryl, aralkyl or a heteroaryl group; and Y- = halo, C1-4 alkyl sulfate or alkanesulfonate, sulfate, or **tetrafluoroborate**). These compds. are suitable for dyeing fibers contg. keratin, esp. human hair. Thus, 1-methyl-5-oxoindeno[1,2-b]pyridinium trifluoromethanesulfonate (II) was prepd. starting from

1-methyl-5-oxoindeno[1,2-b]pyridine-4-azafluoren-9-one and Me trifluoromethanesulfonate. A compn. contg. II and 2,4,5,6-tetraminopyrimidine sulfate gave a dark brown color to hair.

ST quaternized azafluorenone hair dye prepn

IT Surfactants
(anionic; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(arom., primary; quaternized azafluorenones for dyeing hair fibers)

IT Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(arom.; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aryl, secondary; quaternized azafluorenones for dyeing hair fibers)

IT Hair preparations
(dyes; quaternized azafluorenones for dyeing hair fibers)

IT Surfactants
(nonionic; quaternized azafluorenones for dyeing hair fibers)

IT Shampoos
(quaternized azafluorenones for dyeing hair fibers)

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT Surfactants
(zwitterionic; quaternized azafluorenones for dyeing hair fibers)

IT 28020-38-4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT 59-48-3 62-53-3, Benzenamine, biological studies 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 77-32-7 81-11-8 83-30-7 83-56-7, 1,5-Naphthalenediol 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4, 2,3-Naphthalenediol 92-65-9 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 98-37-3 99-05-8 99-07-0 99-31-0 99-50-3 100-01-6, biological studies 101-77-9 101-80-4 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 116-63-2 118-12-7 118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3 119-59-5 119-70-0 120-80-9, 1,2-Benzenediol, biological studies 121-47-1 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies 150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-Pyrimidinediamine 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Pyridinediamine 462-08-8, 3-Pyridinamine 480-66-0 488-87-9 496-73-1 504-15-4 504-17-6 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-87-5 537-65-5 578-66-5, 8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6 606-55-3 608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 614-82-4 615-50-9 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6

623-09-6 636-25-9 876-87-9 934-22-5, 1H-Benzimidazol-5-amine
1004-74-6, Pyrimidinetetramine **1004-75-7** 1123-55-3,
 7-Benzothiazolamine 1123-93-9, 5-Benzothiazolamine 1125-60-6,
 5-Isoquinolinamine 1197-55-3 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine
 1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9, 1H-Indol-7-ol
 2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2654-52-6
 2785-06-0 2835-95-2 2835-99-6 2871-01-4 3131-52-0,
 1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7 3855-78-5
 4318-76-7, 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine
 4506-66-5 4928-43-2 5007-67-0 5131-58-8 5192-03-0,
 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4,
 1H-Indol-4-amine 5217-47-0 5318-27-4, 1H-Indol-6-amine 5345-47-1
5392-28-9 5418-63-3 5434-20-8 5718-83-2 5930-28-9
 5959-52-4 6201-65-6 6259-50-3 6358-09-4 6399-72-0 6628-04-2
 6967-12-0, 1H-Indazol-6-amine 7169-34-8, 3(2H)-Benzofuranone 7336-20-1
 7411-49-6 7575-35-1 **7749-47-5** 7768-28-7 **13754-19-3**
 , 4,5-Pyrimidinediamine 14268-66-7, 1,3-Benzodioxol-5-amine 14338-36-4
 16082-33-0, 1H-Pyrazole-3,5-diamine 16859-86-2 16867-03-1
 19335-11-6, 1H-Indazol-5-amine **22715-34-0** 23244-87-3,
 2,4,5-Pyridinetriamine 23894-07-7 24119-24-2 28491-52-3 29539-03-5
 29705-39-3 41927-50-8 50610-28-1 51387-92-9 53760-27-3
 54381-16-7 55302-96-0 56216-28-5 61224-35-9 61693-42-3
62496-02-0 66635-40-3 70643-19-5 74918-21-1 79352-72-0
 83732-72-3 83763-47-7 84540-47-6 84540-50-1 85679-78-3
 85926-99-4 90817-34-8 93841-24-8 93841-25-9 104333-09-7
 110102-86-8 110952-48-2 114402-54-9 115423-86-4 117907-43-4
 126335-41-9 128729-30-6 130582-56-8 135043-64-0 137290-86-9
 144644-13-3 159661-42-4 202525-71-1 202525-73-3 202525-74-4
 202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9
 215377-52-9 220118-56-9 320728-23-2 320728-25-4 320728-27-6
 320728-29-8 325958-39-2D, salts 325958-40-5D, salts 325958-41-6D,
 salts 325958-42-7D, salts 325958-43-8D, salts 325958-44-9D, salts
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(quaternized azafluorenones for dyeing hair fibers)
 IT 3882-46-0, 5H-Indeno[1,2-b]pyridin-5-one
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)

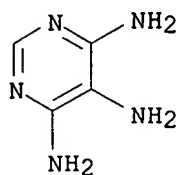
(quaternized azafluorenones for dyeing hair fibers)
 IT 325958-45-0P
 RL: BUU (Biological use, unclassified); **SPN (Synthetic
 preparation)**; BIOL (Biological study); **PREP (Preparation)**;
 USES (Uses)

(quaternized azafluorenones for dyeing hair fibers)
 IT 333-27-7
 RL: RCT (Reactant); RACT (Reactant or reagent)

(quaternized azafluorenones for dyeing hair fibers)
 RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

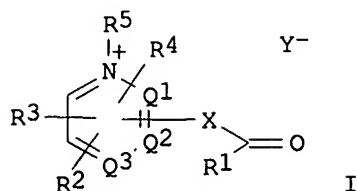
- (1) Abramenko, P; HCAPLUS
- (2) Abramenko, P; ZH VSES KHIM O-VA 1983, V28(3), P349 HCAPLUS
- (3) Basf Ag; DE 2051318 A 1972 HCAPLUS
- (4) Bristol Myers Co; EP 0758547 A 1997 HCAPLUS
- (5) Kloc; HCAPLUS
- (6) Kloc; CAN J CHEM 1979, V57(12), P1506 HCAPLUS
- (7) L'Oréal; FR 1430089 A
- (8) Mardenborough; HCAPLUS
- (9) Mardenborough; MED CHEM RES 1999, V9(2), P118 HCAPLUS

(10) Merck & Co Inc; WO 9409002 A 1994 HCAPLUS
 (11) Prostakov, N; HCAPLUS
 (12) Prostakov, N; HCAPLUS
 (13) Prostakov, N; KHIM GETEROTSIKL SOEDIN 1972, 9, P1220 HCAPLUS
 (14) Prostakov, N; KHIM GETEROTSIKL SOEDIN 1983, 2, P252 HCAPLUS
 (15) Sandoz Ag; CH 616441 A 1980 HCAPLUS
 (16) Sandoz Sa; FR 2073388 A 1971 HCAPLUS
 (17) Zandersons, A; HCAPLUS
 (18) Zandersons, A; KHIM GETEROTSIKL SOEDIN 1986, 1, P88 HCAPLUS
 IT 118-70-7, 4,5,6-Pyrimidinetriamine
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (quaternized azafluorenones for dyeing hair fibers)
 RN 118-70-7 HCAPLUS
 CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:45037 HCAPLUS
 DN 134:120569
 TI Hair dyeing preparations containing heterocyclic aldehydes or ketones
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.a., Germany
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19933187	A1	20010118	DE 1999-19933187	19990715
	WO 2001005359	A2	20010125	WO 2000-EP6399	20000706
	WO 2001005359	A3	20010426		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1999-19933187	A	19990715		
OS	MARPAT 134:120569				
GI					



AB The invention concerns compns. for dyeing keratin fibers, esp. hair, that contain at least one heterocyclic aldehyde or ketone of the formula (I) and a compd. from the group of arom. amines, hydroxyls, including heterocycles, and compds. with active CH groups. In I R1 = H, C1-C4 alkyl, aryl, heteroaryl; R2, R3, R4 = H, C1-C4 alkyl, hydroxyalkyl, carboxyalkyl, sulfoalkyl, aryl, aralkyl, heteroaryl; Q1, Q2, Q3 = combination of two C and one N, the N can be quaternized; X = vinylene or vinylene deriv.; Y = halide, benzene sulfonate, p-toluene sulfonate, methane sulfonate, tetrachlorozincate, nitrogen oxide, oxide. Thus 2-formyl-1-methylquinoxalinium-trifluoromethanesulfonate was synthesized from quinoxaline-2-carboxaldehyde and trifluoromethanesulfonic acid Me ester. The product was used in hair dyeing compns.; depending on the selected other dye(s), different colors were obtained; e.g the combination with 2-methyl-3-amino-6-methoxypyridine dihydrochloride resulted reddish brown hair color.

ST hair dye heterocyclic aldehyde ketone

IT Hair preparations

(dyes; hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT Color

Hair

Oxidizing agents

pH

(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT Aldehydes, biological studies

Halides

Keratins

Ketones, biological studies

Perchlorates

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(hair dyeing preps. contg. heterocyclic aldehydes or ketones)

IT 50-21-5, Lactic acid, biological studies 59-48-3, Oxindol 65-49-6,
4-Aminosalicylic acid 67-52-7, Barbituric acid 71-47-6, Formate,
biological studies 71-50-1, Acetate, biological studies 72-03-7,
Propionate, biological studies 75-75-2, Methanesulfonic acid 77-92-9,
Citric acid, biological studies 79-14-1, Glycolic acid, biological
studies 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7,
1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-
sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic
acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid
90-05-1, 2-Methoxyphenol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-
disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5,
2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 98-37-3,
3-Amino-4-hydroxybenzene sulfonic acid 99-05-8, 3-Aminobenzoic acid
99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid
99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological

studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4,
 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxy-phenylacetic acid
 104-15-4, biological studies 106-50-3, p-Phenylenediamine, biological
 studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3,
 Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6,
 Phloroglucin 108-99-6, 3-Methylpyridine 109-06-8, 2-Methylpyridine
 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7,
 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-70-0,
 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene
 sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8,
 4-Aminophenol 123-31-9, Hydroquinone, biological studies 141-84-4,
 Rhodanine 142-62-1, Hexanoic acid, biological studies 149-91-7, Gallic
 acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6,
 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
 4-Methoxyphenol 461-55-2, Butyrate, biological studies 488-87-9,
 2,5-Dimethylresorcin 496-73-1, 1,3-Benzenediol, 4-methyl- 504-15-4
 504-17-6, Thiobarbituric acid 517-22-6, 2,4-Dimethyl-3-ethylpyrrole
 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone
 535-87-5, 3,5-Diaminobenzoic acid 553-86-6, Cumaranone 578-66-5,
 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline
 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxylacetate
 608-59-3, Gluconate 610-74-2, 2,5-Diaminobenzoic acid 611-03-0,
 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7,
 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6,
 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9,
 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7,
 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole
 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid
 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1791-73-7,
 2,4-Diamino-6-methylpyrimidine 1820-80-0, 3-Aminopyrazole 1953-54-4,
 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole
 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-
 toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide
 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol
 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0,
 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
 3167-49-5, 6-Aminonicotinic acid 3198-32-1, Benzenesulfonate, biological
 studies 3342-78-7, 2-Aminophenylacetic acid 3715-17-1, Tartrate,
 biological studies 3731-53-1, 4-Aminomethylpyridine 3812-32-6,
 Carbonate, biological studies 3855-78-5, 2,3,4-Trimethylpyrrole
 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
 tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine
 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride
 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole
 5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-
 indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2,
 Rhodanine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol
 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol,
 2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic
 acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
 6-Amino-7-hydroxy-2-naphthalenesulfonic acid 6628-04-2,
 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7429-90-5D,
 Aluminum, salts, biological studies 7439-89-6D, Iron, salts, biological
 studies 7439-93-2D, Lithium, salts, biological studies 7439-95-4D,

Magnesium, salts, biological studies 7439-96-5D, Manganese, salts, biological studies 7440-09-7D, Potassium, salts, biological studies 7440-23-5D, Sodium, salts, biological studies 7440-24-6D, Strontium, salts, biological studies 7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts, biological studies 7440-70-2D, Calcium, salts, biological studies 7575-35-1, N,N-Bis(2-hydroxyethyl)p-phenylenediamine 7722-84-1, Hydrogen peroxide, biological studies 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10023-74-2, Valerate, biological studies 13297-17-1, 2-Acetyl-3-methylquinoxaline-1,4-dioxide 14265-44-2, Phosphate, biological studies 14268-66-7, 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid 14808-79-8, Sulfate, biological studies 15477-76-6, **Phosphonate** 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium-iodide 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-28-2 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23612-57-9, 2-Amino-3-hydroxymethylpyridine 24119-24-2, N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine-trihydrochloride 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 31905-57-4, Nitrophenylenediamine 34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene 34984-16-2, 2,6-Diaminomethylpyridine 37181-39-8, Trifluoromethanesulfonate 41927-50-8 43093-74-9, Nitroaminophenol 50610-28-1 51387-92-9 53666-79-8 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol **62496-02-0**, 2-Methylamino-4,5,6-triaminopyrimidine 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-tetrahydrochloride 79352-72-0, 2-Aminomethyl-4-aminophenol 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90008-38-1, 2,5-Pyridinedimethanamine 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 104333-09-7, 2-Hydroxymethyl-4-aminophenol 105250-18-8, 2,4-Pyridinedimethanamine 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid 128729-30-6 132589-61-8, 1H-Indol-2-ol, 2,3-dihydro- 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3 159519-79-6, Brenzcatechin 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6, 1,3-Benzenediol-, 2,4,6-triamino-, trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 215377-52-9, 3,4-Methylene-diaminoaniline 220118-56-9 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-01-9 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 320577-63-7 **320577-64-8D**, salts 320577-66-0D, salts 320577-67-1D, salts 320577-68-2D, salts 320577-69-3D, salts 320577-70-6D, salts 320577-71-7D, salts 320577-72-8D, salts 320577-73-9D, salts 320577-74-0D, salts 320577-75-1D, salts 320577-76-2D, salts 320577-77-3 320577-78-4D,

salts 320577-79-5D, salts 320577-80-8D, salts

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. contg. heterocyclic aldehydes or ketones)

IT 320577-81-9D, salts 320577-82-0D, salts

320577-83-1D, salts 320577-84-2D, salts 320577-85-3D, salts

320577-86-4D, salts 320577-87-5D, salts

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. contg. heterocyclic aldehydes or ketones)

IT 320577-65-9P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(hair dyeing preps. contg. heterocyclic aldehydes or ketones)

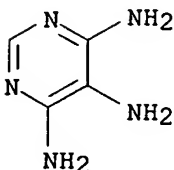
IT 118-70-7, 4,5,6-Triaminopyrimidine

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); USES (Uses); PREP (Preparation)

(hair dyeing preps. contg. heterocyclic aldehydes or ketones)

RN 118-70-7 HCAPLUS

CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:808548 HCAPLUS

DN 133:366177

TI Hair dye preparations containing diaminobenzene derivatives

IN Chassot, Laurent; Descloux, Laurence

PA Wella Aktiengesellschaft, Germany

SO Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C07D213-38

ICS C07D213-85; C07D213-61; C07D213-26; C07D213-82; C07D213-73;

C07D213-64; C07D213-65; C07D213-68; C07D213-84; C07D239-26;

A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 27

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1052252	A1	20001115	EP 2000-102127	20000204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19922392	C1	20010125	DE 1999-19922392	19990514
	US 6461388	B1	20021008	US 2000-541937	20000403
	JP 2000344749	A2	20001212	JP 2000-136558	20000510
	BR 2000001753	A	20010102	BR 2000-1753	20000512

PRAI DE 1999-19922392 A 19990514

OS MARPAT 133:366177

AB Hair dye preps. contain diaminobenzene derivs. such as 2,5-diamino-1-(3-pyridyl)benzene, 2,5-diamino-1-(2-pyrimidyl)benzene, 2,5-diamino-1-(6-nitro-2-pyridyl)benzene or their salts and suitable coupler components. Thus, 2,5-diamino-1-(3-pyridyl)benzene-2HCl (I) was prepd. by the coupling reaction of 3-pyridylboric acid with ~~2,5-ter-butyloxycarbonylaminobromobenzene in the presence of tetrakis(triphenylphosphine)palladium followed by the removal of the protecting group.~~ A formulation comprised I 0.00125 and m-aminophenol (coupler) 0.00125 mol, 8% potassium oleate soln. 10.0, 22% NH3 soln. 10.0, isopropanol 10.0, ascorbic acid 0.3, and water to 100 g.

ST diaminobenzene hair dye prepn; pyridylbenzene amine hair dye prepn

IT Hair preparations

(dyes, oxidative; hair dye preps. contg. diaminobenzene derivs.)

IT Hair preparations

(dyes; hair dye preps. contg. diaminobenzene derivs.)

IT 95-70-5, 2,5-Diaminotoluene 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol **1004-74-6D**, Tetraaminopyrimidine, derivs. 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs. 93841-24-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dye preps. contg. diaminobenzene derivs.)

IT 306958-53-2P 306958-58-7P 306958-60-1P 306958-63-4P 306958-65-6P
306958-68-9P 306958-70-3P 306958-73-6P 306958-75-8P 306958-78-1P
306958-81-6P **306958-84-9P** 306958-87-2P 306958-89-4P
306958-91-8P 306958-92-9P 306958-94-1P 306958-96-3P 306958-97-4P
306959-00-2P 306959-02-4P 306959-03-5P 306959-05-7P
306959-07-9P 306959-09-1P 306959-10-4P 306959-11-5P
306959-12-6P 306959-13-7P 306959-14-8P 306959-15-9P 306959-16-0P
306959-17-1P 306959-18-2P 306959-19-3P 306959-20-6P 306959-21-7P
306959-22-8P 306959-23-9P 306959-24-0P 306959-25-1P 306959-26-2P
306959-27-3P 306959-28-4P 306959-29-5P 306959-30-8P 306959-31-9P
306959-32-0P 306959-33-1P 306959-34-2P 306959-35-3P 306959-36-4P
306959-37-5P 306959-38-6P 306959-39-7P 306959-40-0P 306959-41-1P
306959-42-2P 306959-43-3P 306959-44-4P 306959-45-5P 306959-46-6P
306959-47-7P 306959-48-8P 306959-49-9P 306959-50-2P 306959-51-3P
306959-52-4P 306959-53-5P 306959-54-6P 306959-55-7P 306959-56-8P
306959-57-9P 306959-58-0P 306959-59-1P 306959-60-4P 306959-61-5P
306959-62-6P 306959-63-7P 306959-64-8P 306959-65-9P 306959-66-0P
306959-67-1P 306959-68-2P 306959-69-3P 306959-70-6P 306959-71-7P
306959-72-8P 306959-73-9P 306959-74-0P 306959-75-1P 306959-76-2P
306959-77-3P 306959-78-4P 306959-79-5P **306959-80-8P**
306959-81-9P **306959-82-0P** 306959-83-1P 306959-84-2P
306959-85-3P 306959-86-4P 306959-87-5P 306959-88-6P 306959-89-7P
306959-90-0P 306959-91-1P 306959-92-2P 306959-93-3P 306959-94-4P
306959-95-5P 306959-96-6P 306959-97-7P 306959-98-8P 306959-99-9P
306960-00-9P 306960-01-0P 306960-02-1P 306960-03-2P 306960-04-3P
306960-05-4P 306960-06-5P 306960-07-6P 306960-08-7P

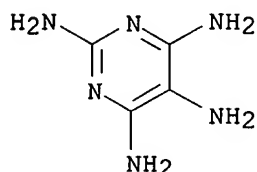
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(hair dye preps. contg. diaminobenzene derivs.)

IT 109-04-6 121-43-7, Trimethyl borate 1692-25-7 3430-17-9
3510-66-5 4487-59-6 **4595-60-2** 4926-28-7 5315-25-3
28733-43-9 35590-37-5 50488-42-1 175205-82-0 244104-65-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye prepns. contg. diaminobenzene derivs.)
 IT 244104-66-3P 251115-20-5P
 RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation)**; RACT (Reactant or reagent)
 (hair dye prepns. contg. diaminobenzene derivs.)
 RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Henkel & Cie Gmbh; DE 2518393 A 1976 HCAPLUS
 (2) Konrad, G; US 4994087 A 1991 HCAPLUS
 (3) Lange Fritz-Walter; US 3647351 A 1972 HCAPLUS
 (4) Oreal; EP 0740931 A 1996 HCAPLUS
 (5) Wella Ag; EP 0943614 A 1999 HCAPLUS
 (6) Wella Ag; EP 0963982 A 1999 HCAPLUS
 (7) Wella Ag; DE 19822041 A 1999 HCAPLUS
 IT **1004-74-6D**, Tetraaminopyrimidine, derivs.
 RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; USES (Uses); **PREP (Preparation)**
 (hair dye prepns. contg. diaminobenzene derivs.)
 RN 1004-74-6 HCAPLUS
 CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:475512 HCAPLUS
 DN 133:109636
 TI Topical compositions comprising protected functional thiols
 IN Glenn, Robert Wayne, Jr.; Katritzky, Alan Roy; Block, Eric; Shair, Matthew David; Butts, Matthew David
 PA The Procter & Gamble Company, USA; General Electric Company
 SO PCT Int. Appl., 132 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K007-00
 CC 62-4 (Essential Oils and **Cosmetics**)
 Section cross-reference(s): 28

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000040210	A2	20000713	WO 2000-US444	20000107
	WO 2000040210	A3	20011129		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2356325	AA	20000713	CA 2000-2356325	20000107
EP 1143916	A2	20011017	EP 2000-904252	20000107
EP 1143916	A3	20020206		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

BR 2000007437	A	20011120	BR 2000-7437	20000107
JP 2002541058	T2	20021203	JP 2000-591967	20000107

PRAI US 1999-115278P P 19990108
US 1999-129453P P 19990415
WO 2000-US444 W 20000107

OS MARPAT 133:109636

AB This invention relates to a topical compn. for treating amino acid based substrates comprising a protected thiol compd. having the formula R-(S-Pr)_m where R is a functional group, S is sulfur, and Pr is a heterocyclic protecting group, and m is an integer between 1 and 100. The invention further relates to systems which comprise this protected thiol compd. and an activating mechanism. The protected thiol compds. of the present invention may be used in hair care compns., textile care compns., cosmetic compns., oral care compns., skin care, nail care, laundry care, acne care and animal care compns. A preferred embodiment of the present invention provides a silicone compn. and method for making. The compn. comprises a polysiloxane or silicone resin, at least one linker, and at least one mol. hook. Pyridinium, 1-methyl-2-[(hexadecyl)thiol]-, bromide (I) was prepd. by the reaction of 1-bromohexadecane and methyl-2-thiopyridone. A hair prepn. contained I 3.00, urea 10.00, cocamidopropyl betaine 0.80, isopropanol 50.00, and water q.s. 100%.

ST topical cosmetic thiol deriv

IT Hair preparations
(conditioners, styling; topical compns. comprising protected functional thiols)

IT Hair preparations
(conditioners; topical compns. comprising protected functional thiols)

IT Hair preparations
(dyes; topical compns. comprising protected functional thiols)

IT Cosmetics
(mascaras; topical compns. comprising protected functional thiols)

IT Cosmetics
(nail lacquers; topical compns. comprising protected functional thiols)

IT Cotton
Dentifrices
Dyes
Fur
Hair
Nail (anatomical)
Shampoos
Skin
Textiles
Tooth
Wool
(topical compns. comprising protected functional thiols)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical compns. comprising protected functional thiols)

IT 83517-25-3P 86763-35-1P, S-Hexadecyl ethanethioate 115254-29-ODP, reaction product pyridiniumthio-linked derivs. 115254-29-OP
282529-95-7P 282530-02-3P 282530-06-7P

282530-12-5P 282530-15-8P 282530-19-2P 282530-27-2P
 282530-31-8P 282530-34-1P 282530-38-5P 282530-41-0P 282530-44-3P
 282530-45-4P 282530-46-5P 282530-52-3P 282530-54-5P

282530-56-7P 282530-58-9P 282530-60-3P

282530-63-6P 282530-65-8P 282530-67-0P

282530-71-6P

RL: BUU (Biological use, unclassified); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation);
 USES (Uses)

(topical compns. comprising protected functional thiols)

IT 60-56-0, 2-Mercapto-1-methylimidazole 74-88-4, Iodomethane, reactions
 75-36-5, Acetyl chloride 77-78-1, Dimethyl sulfate 96-33-3 100-11-8,
 4-Nitrobenzyl bromide 102-52-3, Malonaldehyde bis(dimethylacetal)
 112-67-4, Palmitoyl chloride 112-82-3, 1-Bromohexadecane 121-60-8
 135-19-3, 2 Naphthol, reactions 140-89-6 149-91-7, Gallic acid,
 reactions 151-01-9, O-Ethyl xanthate 598-52-7, 1 Methyl 2 thiourea
 605-65-2 627-18-9, 3-Bromo-1-propanol 631-67-4 694-85-9,
 1-Methyl-2-pyridone 1592-20-7 2043-53-0 2254-94-6, 3-Methyl
 benzothiazole-2-thione 2576-47-8 2917-26-2, 1-Hexadecanethiol
 5003-71-4, 3-Bromopropylamine hydrobromide 5394-18-3,
 N-(4-Bromobutyl)phthalimide 7632-00-0, Sodium nitrite 19172-47-5,
 Lawesson's reagent 24517-45-1, 2-(Methylsulfonyl)ethanethiol
 27081-10-3, Tropylium tetrafluoroborate 33252-63-0
 50816-19-8, 8-Bromo-1-octanol 50970-65-5 156118-35-3D, TMS-terminated,
 reaction product with vinylbenzyl chloride, 1-methyl-2-pyrimidinethione
 282530-04-5 282530-25-0, 8-Bromooctyl gallate
 RL: RCT (Reactant); RACT (Reactant or reagent)

(topical compns. comprising protected functional thiols)

IT 2044-27-1P 31098-39-2P 73547-86-1P 78234-05-6P 83626-75-9P
 92647-21-7P 124452-83-1P 201160-48-7P 282529-99-1P 282530-10-3P
 282530-21-6P 282530-23-8P 282530-29-4P, 3-Bromopropyl gallate
 282530-48-7P 282530-50-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)

(topical compns. comprising protected functional thiols)

IT 282529-95-7P

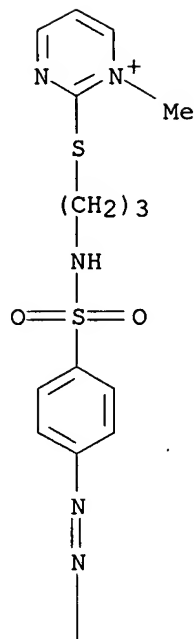
RL: BUU (Biological use, unclassified); SPN (Synthetic
 preparation); PREP (Preparation); PREP
 (Preparation); USES (Uses)

(topical compns. comprising protected functional thiols)

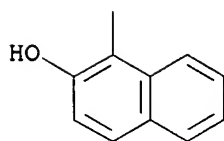
RN 282529-95-7 HCAPLUS

CN Pyrimidinium, 2-[[[3-[[[4-[(2-hydroxy-1-naphthalenyl)azo]phenyl]sulfonyl]am
 ino]propyl]thio]-1-methyl-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

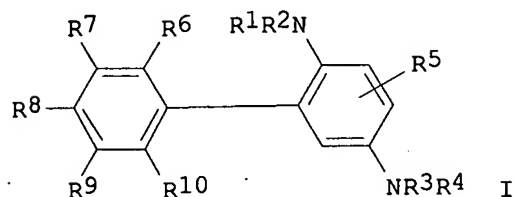


● Br⁻

L70 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:753020 HCAPLUS
DN 132:6216
TI Oxidative hair coloring agents containing 2,5-diamino-1-phenylbenzene derivatives
IN Braun, Hans-Juergen; Chassot, Laurent
PA Wella A.-G., Germany
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-00
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9959527	A2	19991125	WO 1999-EP1084	19990219
	WO 9959527	A3	20000120		
	W: BR, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19822041	A1	19991223	DE 1998-19822041	19980516
	BR 9906440	A	20000711	BR 1999-6440	19990219
	EP 1051143	A2	20001115	EP 1999-913174	19990219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002511106	T2	20020409	JP 1999-557357	19990219
	<u>US 6500213</u>	B1	20021231	US 2000-446726	20000314
PRAI	DE 1998-19822041	A	19980516		
	WO 1999-EP1084	W	19990219		
OS	MARPAT 132:6216				
GI					



AB Oxidative dyes for keratin fibers based on a combination of developers and couplers, including .gtoreq.1 2,5-diamino-1-phenylbenzene deriv. [I; R1-R4 = H, alkyl, (di)hydroxyalkyl, alkoxyalkyl; or R1NR2 and/or R3NR4 = 4-8-membered aliph. ring; .gtoreq.2 of R1-R4 = H; R5 = H, OH, halo, (hydroxy)alkyl, alkoxy; R6-R10 = H, halo, CN, OH, alkyl, alkoxy, alkylthio, SH, NO2, (substituted) amino, CF3, CHO, etc.; or 2 neighboring groups of R6-R10 = OCH2O] or salt thereof as a developer, provide intense shades of color which are extremely fast to light, washing, and friction and are stable during storage. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with benzeneboric acid in the presence of tetrakis(triphenylphosphine)palladium to I-2HCl (R1-R10 = H) (II). A hair dye compn. contg. II 0.320, 5-amino-2-methylphenol 0.300, 4-amino-3-methylphenol 0.600, 4-aminophenol 0.600, .alpha.-naphthol 0.100, 2-chloro-6-(ethylamino)-4-nitrophenol 0.200, 8% aq. K oleate 10.000, 22% aq. NH3 10.000, iso-PrOH 10.000, ascorbic acid 0.300, and H2O to 100.000 g, when mixed 1:1 with 6% H2O2 and applied to bleached hair, produced a red color.

ST oxidative hair dye aminophenylbenzene

IT Hair preparations

(dyes, oxidative; oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 251114-11-1P

RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(7oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 90-15-3, .alpha.-Naphthol 95-70-5, 2,5-Diaminotoluene 96-91-3, 2-Amino-4,6-dinitrophenol 106-50-3, 1,4-Benzenediamine, biological

studies 108-46-3, 1,3-Benzenediol, biological studies 123-30-8,
 4-Aminophenol 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-
 methylbenzene **1004-74-6D**, Tetraaminopyrimidine, derivs.
 2835-95-2, 5-Amino-2-methylphenol 2835-97-4, 2-Amino-3-methylphenol
 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs. 54381-16-7 59320-13-7
 70643-19-5 78886-51-8 83763-48-8 93841-24-8 93841-25-9
 131657-78-8, 2-Chloro-6-(ethylamino)-4-nitrophenol 135043-64-0,
 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-30-2,
 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole sulfate
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)
 IT 109942-17-8P, [1,1'-Biphenyl]-2,5-diamine 112196-97-1P 251114-04-2P
 251114-05-3P 251114-06-4P 251114-07-5P, [1,1'-Biphenyl]-2,3',5-
 triamine 251114-08-6P 251114-09-7P 251114-10-0P 251114-12-2P
 251114-14-4P 251114-15-5P 251114-16-6P 251114-17-7P 251114-18-8P
 251114-19-9P 251114-20-2P 251114-21-3P 251114-22-4P 251114-23-5P
 251114-24-6P 251114-25-7P 251114-26-8P 251114-27-9P 251114-28-0P
 251114-29-1P 251114-30-4P 251114-31-5P 251114-32-6P 251114-33-7P
 251114-34-8P 251114-35-9P 251114-36-0P 251114-37-1P 251114-38-2P
 251114-39-3P 251114-40-6P 251114-41-7P 251114-42-8P 251114-43-9P
 251114-44-0P 251114-45-1P 251114-46-2P 251114-47-3P 251114-48-4P
 251114-49-5P 251114-50-8P 251114-51-9P 251114-52-0P 251114-53-1P
 251114-54-2P 251114-55-3P 251114-56-4P 251114-57-5P 251114-58-6P
 251114-59-7P 251114-60-0P 251114-61-1P 251114-62-2P 251114-63-3P
 251114-64-4P 251114-65-5P 251114-66-6P 251114-67-7P 251114-68-8P
 251114-69-9P 251114-70-2P 251114-71-3P 251114-72-4P 251114-73-5P
 251114-74-6P 251114-75-7P 251114-76-8P 251114-77-9P 251114-78-0P
 251114-79-1P 251114-80-4P 251114-81-5P 251114-82-6P 251114-83-7P
 251114-84-8P 251114-85-9P 251114-86-0P 251114-87-1P 251114-88-2P
 251114-89-3P 251114-90-6P 251114-91-7P 251114-92-8P 251114-93-9P
 251114-94-0P 251114-95-1P 251114-96-2P 251114-97-3P 251114-98-4P
 251115-00-1P 251115-01-2P 251115-02-3P 251115-03-4P
 251115-04-5P 251115-05-6P 251115-06-7P 251115-07-8P 251115-08-9P
 251115-09-0P 251115-10-3P 251115-11-4P 251115-12-5P
 RL: BUU (Biological use, unclassified); **SPN (Synthetic
 preparation)**; BIOL (Biological study); **PREP (Preparation)**;
 USES (Uses)

(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)
 IT 95-46-5, 1-Bromo-2-methylbenzene 98-80-6, Benzenboronic acid 99-90-1,
 1-Bromo-4-acetylbenzene 101-55-3, 1-Bromo-4-phenoxybenzene 104-92-7,
 4-Bromoanisole 104-95-0 106-38-7, 1-Bromo-4-methylbenzene 106-39-8,
 1-Bromo-4-chlorobenzene 106-40-1, 4-Bromoaniline 106-41-2,
 4-Bromophenol 108-37-2, 1-Bromo-3-chlorobenzene 109-85-3,
 2-Methoxyethylamine 111-42-2, Diethanolamine, reactions 121-43-7,
Trimethyl borate 123-75-1, Pyrrolidine, reactions 124-40-3,
 Dimethylamine, reactions 141-43-5, reactions 327-75-3,
 1-Bromo-2,4-bis(trifluoromethyl)benzene 344-38-7 350-30-1,
 3-Chloro-4-fluoronitrobenzene 392-83-6, 1-Bromo-2-trifluoromethylbenzene
 401-78-5, 1-Bromo-3-trifluoromethylbenzene 402-43-7,
 1-Bromo-4-trifluoromethylbenzene 445-01-2 452-74-4 460-00-4,
 1-Bromo-4-fluorobenzene 553-94-6, 1-Bromo-2,5-dimethylbenzene
 556-96-7, 1-Bromo-3,5-dimethylbenzene 576-23-8, 1-Bromo-2,3-
 dimethylbenzene 577-19-5, 1-Bromo-2-nitrobenzene 578-57-4,
 1-Bromo-2-methoxybenzene 583-70-0, 1-Bromo-2,4-dimethylbenzene
 583-71-1, 1-Bromo-3,4-dimethylbenzene 586-61-8, 1-Bromo-4-
 isopropylbenzene 586-78-7, 1-Bromo-4-nitrobenzene 588-93-2,

1-Bromo-4-propylbenzene 588-96-5, 1-Bromo-4-ethoxybenzene 591-17-3,
 1-Bromo-3-methylbenzene 591-20-8 616-30-8, 2,3-Dihydroxypropylamine
 623-00-7, 1-Bromo-4-cyanobenzene 694-80-4, 1-Bromo-2-chlorobenzene
 698-67-9, 4-Bromobenzamide 1007-15-4 1072-85-1, 1-Bromo-2-
 fluorobenzene 1073-06-9, 1-Bromo-3-fluorobenzene 1074-16-4 1081-73-8
 1193-72-2, 1-Bromo-2,4-dichlorobenzene 1422-53-3 1450-75-5
 1585-07-5, 1-Bromo-4-ethylbenzene 1973-22-4, 1-Bromo-2-ethylbenzene
 2113-57-7, 3-Bromobiphenyl 2142-63-4 2357-52-0, 1-Bromo-3-fluoro-4-
 methoxybenzene 2655-84-7, 1-Bromo-3-ethoxybenzene 2859-78-1,
 1-Bromo-3,4-dimethoxybenzene 3460-23-9 3972-65-4, 1-Bromo-4-tert-
 butylbenzene 4654-39-1 5326-34-1 5344-78-5 5391-88-8 5469-19-2,
 1-Bromo-2,4,5-trimethylbenzene 5720-07-0, 4-Methoxybenzeneboronic acid
 5798-75-4, Ethyl 4-bromobenzoate 6259-08-1 6698-13-1,
 1-Bromo-2,3-methylenedioxybenzene 6952-59-6, 1-Bromo-3-cyanobenzene
 7149-70-4 7295-44-5 7745-93-9, 1-Bromo-2-methyl-5-nitrobenzene
 10269-01-9 10342-83-3 10365-98-7, 3-Methoxybenzeneboronic acid
 13331-27-6, 3-Nitrobenzeneboronic acid 13852-51-2, 5-Chloro-2-methyl-4-
 nitroaniline 14472-14-1 16588-26-4 17715-69-4, 1-Bromo-2,4-
 dimethoxybenzene 19472-74-3 19614-16-5 19752-55-7,
 1-Bromo-3,5-dichlorobenzene 22190-38-1 24398-88-7, Ethyl
 3-bromobenzoate 24424-99-5, Di-tert-butyl dicarbonate 25245-34-5,
 1-Bromo-2,5-dimethoxybenzene 27060-75-9 29558-77-8,
 4-Bromo-4'-hydroxybiphenyl 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene
 30418-59-8, 3-Aminobenzeneboronic acid 34598-49-7, 5-Bromoindan-1-one
 41492-05-1, 1-Bromo-4-butylbenzene 51554-95-1, 1-Bromo-4-pentylbenzene
 55289-35-5 56961-77-4, 1-Bromo-2,3-dichlorobenzene 60956-26-5
 98816-61-6 101079-49-6 117572-79-9 150351-43-2 167415-27-2
 244104-66-3 251115-21-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 29608-77-3P 103977-87-3P 244104-65-2P 251115-13-6P 251115-14-7P
 251115-15-8P 251115-16-9P 251115-17-0P 251115-18-1P 251115-19-2P
 251115-20-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

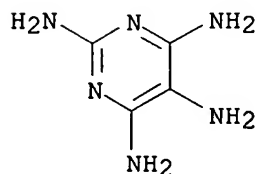
IT 1004-74-6D, Tetraaminopyrimidine, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

RN 1004-74-6 HCAPLUS

CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:84012 HCAPLUS

DN 130:143948

TI Bis-(2,4-diaminophenoxy)benzenes and their use as coupling components in
 oxidative hair coloring compositions and methods

IN Lim, Mu-ill; Pan, Yuh-guo; Stasaitis, Linas R.
 PA Bristol-Myers Squibb Company, USA
 SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-13

ICS C07C217-90

NCL 008408000

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5865854	A	19990202	US 1997-975912	19971121
	EP 918051	A1	19990526	EP 1998-203886	19981119
	EP 918051	B1	20010912		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ES 2161014	T3	20011116	ES 1998-203886	19981119
PRAI	US 1997-975912	A	19971121		
OS	MARPAT 130:143948				
AB	<p>The invention provides compns. and methods contg. novel bis-(2,4-diaminophenoxy)benzene coupling compds., and cosmetically acceptable salts thereof, for use with conventional primary intermediate dye compds. and oxidizing agents for the oxidative coloring of human hair. The compns. of the invention may also contain other components typically used in oxidative hair dye prepn. to impart intense and lasting coloration to hair. A hair dye lotion contained N,N-bis(2-hydroxyethyl)-p-phenylenediamine 0.588, bis-(2,4-diaminophenoxy)benzene 0.322, cocamidopropyl betaine 2, ethylene glycol monoethyl ether 1, benzyl alc. 1, monoethanolamine 0.5, Na sulfite 0.02, EDTA 0.02, ascorbic acid 0.04, and water q.s. to 10 g. Swatches of blended gray and bleached human hair were soaked in the dye compn. plus 20 vols. hydrogen peroxide (10.0 g) for 30 min at room temp., and then rinsed with water, shampooed, and dried. The hair swatches were dyed a blue-black color having deep nuances and color fastness.</p>				
ST	oxidative hair dye coupler bisdiaminophenoxybenzene prepn				
IT	<p>Hair preparations (dyes, oxidative; bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)</p>				
IT	124-43-6 3085-95-8	7722-84-1,	Hydrogen peroxide (H2O2),		
	biological studies	11138-47-9,	Sodium perborate	15630-89-4,	
	Sodium percarbonate				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)				
IT	220011-43-8P	220011-49-4P	220011-56-3P		
	RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)				
IT	70-34-8, 2,4-Dinitrofluorobenzene	108-46-3, 1,3-Benzenediol,	reactions		
	120-80-9, 1,2-Benzenediol,	reactions	608-25-3		
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)				
IT	3761-11-3P	3761-13-5P	4434-10-0P		
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)				

(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)

IT 106-50-3, 1,4-Benzenediamine, biological studies 123-30-8D,
p-Aminophenol, derivs. 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-
phenylenediamine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary intermediate dye; bis(2,4-diaminophenoxy)benzenes as couplers
in oxidative hair dyes)

IT 3085-95-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)

RN 3085-95-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, compd. with hydrogen peroxide (H2O2) (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 7722-84-1

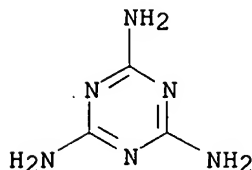
CMF H2 O2

HO-OH

CM 2

CRN 108-78-1

CMF C3 H6 N6



L70 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:12188 HCAPLUS

DN 130:71279

TI Oxidative hair dye compositions containing 1-(4-aminophenyl)pyrrolidines

IN Anderson, James S.; Wong, Michael Y. M.

PA USA

SO U.S., 12 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-13

NCL 008409000

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 5851237 A 19981222 US 1997-892339 19970714
 EP 891765 A2 19990120 EP 1998-202318 19980709
 EP 891765 A3 20000105

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

PRAI US 1997-892339 19970714

OS MARPAT 130:71279

AB Compns. and methods for the oxidative coloring of human hair contg. 1-(4-aminophenyl)pyrrolidines are provided. The compns. of the invention contain as a primary dye intermediate a 1-(4-aminophenyl) pyrrolidine, or a cosmetically acceptable salt thereof. The compns. may also contain at least one other primary intermediate and conventional coupling compds., in addn. to an oxidizing agent and other components typically used in oxidative hair dye preps. Preferred dye intermediates in the compns. of the invention include 1-(4-aminophenyl) pyrrolidine and 1-(4-amino-3-methylphenyl) pyrrolidine, or cosmetically acceptable salts thereof, which produce intense neutral colors when used in admixt. with a suitable coupling agents, such as 3-aminophenol, in conventional hair dye base formulations. Thus, 378.8 g 1-(4-nitrophenyl)pyrrolidine (prepn. given), 12.0 g Darco KB carbon, and 10% palladium on carbon were suspended in 1300 mL ethanol and hydrogenated. The mixt. was then filtered, and the filtrate was stirred in an ice/acetone bath and a cold soln. of concd. H2SO4 (204 g) in 150 mL ethanol was added dropwise over 1 h. The resultant ppt. was filtered, washed, and dried to obtain 325 g of 1-(4-aminophenyl)pyrrolidine sulfate (I). A hair dye contained I 1.0, m-aminophenol 0.5, resorcinol 0.5, 1-naphthol 0.1, isopropanol 10, propylene glycol 15, oleic acid 14, nonoxynol-2 9, cocoamide DEA 1, ammonium hydroxide 10, sodium sulfite 0.1, and water q.s. 100%.

ST oxidative hair dye aminophenylpyrrolidine deriv

IT Hair preparations

(dyes, oxidative; oxidative hair dye compns. contg. aminophenylpyrrolidines)

IT Coupling agents

Oxidizing agents

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

IT 90-15-3, 1-Naphthol 99-98-9 106-50-3D, 1,4-Benzenediamine, derivs., biological studies 108-45-2D, 1,3-Benzenediamine, derivs., biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-46-3D, Resorcinol, derivs. 123-30-8D, p-Aminophenol, derivs. 124-43-6 563-69-9, Carbonoperoxoic acid 591-27-5, 3-Aminophenol 591-27-5D, derivs. 608-25-3 615-66-7 2835-95-2, 2-Hydroxy-4-aminotoluene 2835-99-6, 3-Methyl-4-aminophenol 3085-95-8, Melamine peroxide 7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide (H2O2), biological studies 39349-73-0, **Perborate** 54381-16-7 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 93841-24-8
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

IT 218139-56-1P 218139-57-2P 218139-58-3P

RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

IT 100-00-5, 4-Chloronitrobenzene 123-75-1, Pyrrolidine, reactions 5367-28-2, 5-Chloro-2-nitrotoluene

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

IT 350-46-9P, 4-Fluoronitrobenzene 455-88-9P, 2-Fluoro-5-nitrotoluene

10220-22-1P, 1-(4-Nitrophenyl)pyrrolidine 218139-59-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Ohki; US 5278034 1994 HCAPLUS

(2) Rennison; US 4131468 1978 HCAPLUS

IT 3085-95-8, Melamine peroxide

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidative hair dye compns. contg. aminophenylpyrrolidines)

RN 3085-95-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, compd. with hydrogen peroxide (H2O2) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 7722-84-1

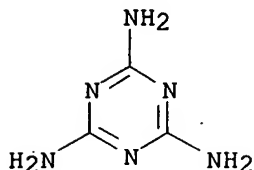
CMF H2.O2

HO-OH

CM 2

CRN 108-78-1

CMF C3 H6 N6



L70 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:587487 HCAPLUS

DN 129:275848

TI Synthesis of alkoxy pyrazines

AU Pustejovska, Martina; Madera, Jiri; Cervený, Libor

CS Dep. Org. Technol., Inst. Chem. Technol., Prague, 166 28, Czech Rep.

SO Chemicke Listy (1998), 92(8), 622-625

CODEN: CHLSAC; ISSN: 0009-2770

PB Ceska Spolecnost Chemicka

DT Journal; General Review

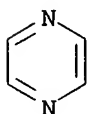
LA Czech

CC 28-0 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 62

AB A review with 21 refs. including reaction of halopyrazines with alkoxides, chlorination of alkylpyrazine N-oxides, reaction of hydroxypyrazines with diazomethane, and reaction of 2,5-piperazinediones with trialkyloxonium tetrafluoroborate.

ST review alkoxy pyrazine prepn; pyrazine alkoxy prepn review
 IT 290-37-9DP, Pyrazine, alkoxy derivs.
 RL: SPN (Synthetic preparation); PREP (Preparation)
 IT 290-37-9DP, Pyrazine, alkoxy derivs.
 RL: SPN (Synthetic preparation); PREP (Preparation)
 RN 290-37-9 HCAPLUS
 CN Pyrazine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:586776 HCAPLUS

DN 129:166068

TI Oxidative dye composition for keratin fibers and method for dyeing

IN Rondeau, Christine; Cotteret, Jean; De la Mettrie, Roland

PA L'Oreal S. A., Fr.

SO Fr. Demande, 50 pp.

CODEN: FRXXBL

DT Patent

LA French

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2757385	A1	19980626	FR 1996-15892	19961223
	FR 2757385	B1	19990129		
	EP 850636	A1	19980701	EP 1997-402834	19971125
	EP 850636	B1	19990506		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 179592	E	19990515	AT 1997-402834	19971125
	ES 2134055	T3	19990916	ES 1997-402834	19971125
	AU 9747629	A1	19980625	AU 1997-47629	19971209
	AU 694398	B2	19980716		
	ZA 9711240	A	19980623	ZA 1997-11240	19971215
	BR 9706295	A	19990504	BR 1997-6295	19971218
	<u>US 5919273</u>	A	19990706	US 1997-994127	19971219
	CA 2223726	AA	19980623	CA 1997-2223726	19971222
	JP 10182378	A2	19980707	JP 1997-353833	19971222
	JP 2968243	B2	19991025		
	CN 1189332	A	19980805	CN 1997-120861	19971222
	RU 2160086	C2	20001210	RU 1997-122261	19971222
PRAI	FR 1996-15892	A	19961223		
OS	MARPAT 129:166068				
AB	Oxidative dye compns. for keratin fibers, esp. for human hair, comprise .gtoreq.1 oxidn. base, .gtoreq.1 coupler based on m-aminophenol derivs., .gtoreq.1 cationic direct dye contg. an azo, ethylenic or CH:N linkage and a cationic nitrogen-contg. ring, and .gtoreq.1 oxidizing agent. A method for dyeing and a kit for packaging the hair dye are claimed. The oxidative dye compn. enables rich coloration with good				

shine and durability. Thus, a dye compn. was prepd. contg. oxidn. bases p-toluylenediamine and p-aminophenol, 5-N-(.beta.-hydroxyethyl)amino-2-methylphenol as coupler, and 4-[(1,3-dimethylimidazolium-2-yl)azo]-N,N-dimethylaniline chloride as cationic direct dye. At time of use, the dye compn. was combined with a hydrogen peroxide soln. Natural gray **hair** was dyed with the above compn. by applying the compn. for 30 and min and then rinsing and shampooing. The dyed **hair** was a deep blond with intense red highlights.

- ST oxidative **hair** dye compn; cationic direct dye oxidative **hair** dye
- IT Azo dyes
Azo dyes
(cationic; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT **Hair** preparations
(dyes, oxidative; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT Keratins
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(fibers; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT Peroxysulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(**perborates**, oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT 6687-56-5 39838-87-4 62163-15-9 73447-48-0 75655-00-4 77061-58-6
89923-52-4 97404-02-9 109220-25-9 143084-49-5 160598-04-9
161328-96-7 161328-99-0 161329-01-7 161329-04-0 161329-05-1
161329-06-2 161329-07-3 161329-08-4 161329-09-5 161329-23-3
161329-25-5 161329-26-6 161329-27-7 161329-28-8 161329-29-9
161329-30-2 161329-31-3 161329-43-7 161329-44-8 161329-45-9
167382-79-8 167382-80-1 167382-83-4 167382-87-8 167382-88-9
167382-95-8 167382-96-9 167382-97-0 167382-98-1 167382-99-2
178822-03-2 178822-05-4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(cationic direct dye; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT 591-27-5D, m-Aminophenol, derivs. 1687-53-2, 5-Amino-2-methoxyphenol
2835-95-2, 5-Amino-2-methylphenol 55302-96-0, 5-N-(.beta.-hydroxyethyl)amino-2-methylphenol 86817-42-7, 5-Amino-2-(.beta.-hydroxyethoxy)phenol 110102-86-8, 5-Amino-4-chloro-2-methylphenol 114109-54-5, 5-Amino-2,4-dimethoxyphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-N-(.beta.-hydroxyethyl)amino-4-methoxy-2-methylphenol 146658-65-3, 5-(.gamma.-Hydroxypropylamino)-2-methylphenol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(coupler; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)
- IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT 92-65-9 93-05-0, N,N-Diethyl-p-phenylenediamine 95-55-6, 2-Aminophenol
 95-70-5 99-98-9, N,N-Dimethyl-p-phenylenediamine 101-54-2,
 N-Phenyl-p-phenylenediamine 106-50-3, 1,4-Benzenediamine, biological
 studies 106-50-3D, 1,4-Benzenediamine, derivs., biological studies
 110-86-1D, Pyridine, derivs., biological studies 123-30-8 148-71-0,
 4-Amino-N,N-diethyl-3-methylaniline 288-13-1D, Pyrazole, derivs.
289-95-2D, Pyrimidine, derivs. 399-95-1, 4-Amino-3-fluorophenol
 399-96-2, 4-Amino-2-fluorophenol 537-65-5 615-66-7,
 2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl-p-phenylenediamine
 2359-52-6 2359-53-7 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 5306-96-7,
 2,3-Dimethyl-p-phenylenediamine 5862-80-6 6393-01-7 7218-02-2,
 2,6-Dimethyl-p-phenylenediamine 7575-35-1, N,N-Bis(.beta.-hydroxyethyl)-
 p-phenylenediamine 14791-78-7, 2-Fluoro-p-phenylenediamine 17672-22-9,
 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-methoxymethylphenol
 63969-43-7 73793-80-3, 2-Hydroxymethyl-p-phenylenediamine 79352-72-0
 80467-77-2 93841-24-8, 2-.beta.-Hydroxyethyl-p-phenylenediamine
 97902-52-8, 2-Isopropyl-p-phenylenediamine 104333-09-7 105293-89-8,
 N,N-Dipropyl-p-phenylenediamine 105607-68-9, 4-Amino-3-chloro-N,N-
 Bis(.beta.-hydroxyethyl)aniline 110952-46-0 126335-43-1,
 2-.beta.-Hydroxyethoxy-p-phenylenediamine 128729-30-6 128729-31-7
 129697-50-3 130582-53-5 135855-34-4 135855-35-5 168202-61-7
 207568-58-9

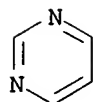
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(oxidn. base; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT **289-95-2D**, Pyrimidine, derivs.
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(oxidn. base; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

RN 289-95-2 HCAPLUS
 CN Pyrimidine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 22 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1998:577128 HCAPLUS
 DN 129:166070
 TI Oxidative dye compositions containing cationic direct colorants for
 keratin fibers and dyeing method
 IN Rondeau, Christine; Cotteret, Jean; De la Mettrie, Roland
 PA L'Oreal S. A., Fr.
 SO Fr. Demande, 69 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2757388	A1	19980626	FR 1996-15895	19961223
	FR 2757388	B1	19991112		
	EP 850638	A1	19980701	EP 1997-402863	19971127
	EP 850638	B1	19990901		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 183917	E	19990915	AT 1997-402863	19971127
	ES 2138855	T3	20000116	ES 1997-402863	19971127
	AU 693751	B1	19980702	AU 1997-47631	19971209
	ZA 9711309	A	19980623	ZA 1997-11309	19971217
	US 6001135	A	19991214	US 1997-994444	19971219
	CA 2222852	AA	19980623	CA 1997-2222852	19971222
	JP 10182379	A2	19980707	JP 1997-353836	19971222
	JP 2974645	B2	19991110		
	RU 2160085	C2	20001210	RU 1997-121289	19971222
	BR 9706323	A	19990504	BR 1997-6323	19971223
PRAI	FR 1996-15895	A	19961223		
OS	MARPAT 129:166070				
AB	The title oxidative dye compns., esp. for dyeing hair , contain .gtoreq.1 oxidn. base, .gtoreq.1 cationic direct colorant based on substituted nitrogen-contg. cationic heterocycle derivs. having N=N, CH=CH or N=CH linkages, and .gtoreq.1 oxidizing agent. The dye compns. enable formation of a wide range of colors and provide rich coloration with good shine and durability. Thus, an oxidative dye compn. was formulated from p-phenylenediamine and 4-(1,3-dimethylimidazolium-2-ylazo)-N,N-dimethylaniline chloride. During application, the dye compn. was mixed with hydrogen peroxide as oxidizing agent. The compn. was applied 30 min to naturally gray hair and then rinsed and shampooed off. The treated hair had an intense red nuance which was resistant to subsequent shampooing.				
ST	oxidative hair dye cationic direct colorant; keratin fiber oxidative dye compn				
IT	Azo dyes Azo dyes (cationic; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)				
IT	Hair preparations (dyes, oxidative; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)				
IT	Keratins RL: MSC (Miscellaneous) (fibers; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)				
IT	Peroxysulfates RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (oxidizing agent; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)				
IT	Group IIIA element compounds RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (perborates , oxidizing agent; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine,				

and shampoo resistance)

IT 6687-56-5 39838-87-4 42476-20-0 54940-81-7 62163-15-9 64651-39-4
 68259-00-7 68912-02-7 73287-60-2 73447-48-0 75655-00-4
 77061-58-6 83950-26-9 84912-24-3 89923-52-4 92888-19-2
 93940-65-9 97404-02-9 97406-09-2 109220-25-9 143084-49-5
 160598-04-9 161328-83-2 161328-85-4 161328-86-5 161328-87-6
 161328-89-8 161328-91-2 161328-92-3 161328-94-5 161328-95-6
 161328-96-7 161328-99-0 161329-01-7 161329-02-8 161329-04-0
 161329-05-1 161329-06-2 161329-07-3 161329-08-4 161329-09-5
 161329-16-4 161329-22-2 161329-23-3 161329-25-5 161329-26-6
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 161329-39-1 161329-42-6 161329-43-7 161329-44-8 161329-45-9
 161329-47-1 167382-76-5 167382-77-6 167382-78-7 167382-79-8
 167382-80-1 167382-82-3 167382-83-4 167382-87-8 167382-88-9
 167382-95-8 167382-96-9 167382-97-0 167382-98-1 167382-99-2
 178822-03-2 178822-05-4 211050-60-1 211050-61-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cationic direct colorant; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidizing agent; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT 92-00-2 92-65-9 93-05-0, N,N-Diethyl-p-phenylenediamine 95-55-6, 2-Aminophenol 95-70-5 99-98-9, N,N-Dimethyl-p-phenylenediamine 101-54-2, N-Phenyl-p-phenylenediamine 106-50-3, 1,4-Benzenediamine, biological studies 110-86-1D, Pyridine, derivs., biological studies 123-30-8 148-71-0, 4-Amino-N,N-diethyl-3-methylaniline 288-13-1D, Pyrazole, derivs. 289-95-2D, Pyrimidine, derivs. 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 537-65-5 615-66-7, 2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl-p-phenylenediamine 2359-52-6 2359-53-7 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 5306-96-7 5862-80-6 6393-01-7 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7575-35-1 14791-78-7 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-methoxymethylphenol 63969-43-7 73793-80-3, 2-Hydroxymethyl-p-phenylenediamine 79352-72-0 80467-77-2 93841-24-8 97902-52-8, 2-Isopropyl-p-phenylenediamine 104333-09-7 105293-89-8, N,N-Dipropyl-p-phenylenediamine 110952-46-0 126335-43-1, 2-.beta.-Hydroxyethoxy-p-phenylenediamine 128729-30-6 128729-31-7 129697-50-3 130582-53-5 135855-34-4 135855-35-5 168202-61-7 207568-58-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidn. base; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

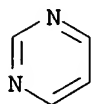
IT 289-95-2D, Pyrimidine, derivs.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidn. base; oxidative hair dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

RN 289-95-2 HCAPLUS

CN Pyrimidine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 23 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1998:207280 HCAPLUS
 DN 128:275101
 TI Gas and gaseous precursor filled microspheres as topical and subcutaneous delivery vehicles
 IN Unger, Evan C.; Matsunaga, Terry O.; Yellowhair, David
 PA Imarx Pharmaceutical Corp., USA
 SO U.S., 40 pp., Cont.-in-part of U.S. Ser. No. 307,305.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM A61K009-127
 NCL 424450000
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 62
 FAN.CNT 19

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>US 5733572</u>	A	19980331	US 1994-346426	19941129
	<u>US 5088499</u>	A	19920218	US 1990-569828	19900820
	WO 9109629	A1	19910711	WO 1990-US7500	19901219
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	AT 180170	E	19990615	AT 1991-902857	19901219
	ES 2131051	T3	19990716	ES 1991-902857	19901219
	JP 3309356	B2	20020729	JP 1991-503276	19901219
	JP 05502675	T2	19930513		
	<u>US 5228446</u>	A	19930720	US 1991-717084	19910618
	WO 9222247	A1	19921223	WO 1992-US2615	19920331
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	AU 9220020	A1	19930112	AU 1992-20020	19920331
	AU 667471	B2	19960328		
	JP 06508364	T2	19940922	JP 1993-500847	19920331
	EP 616508	A1	19940928	EP 1992-912456	19920331
	EP 616508	B1	20010718		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	EP 660687	A1	19950705	EP 1992-912455	19920331
	EP 660687	B1	19981028		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	AT 172625	E	19981115	AT 1992-912455	19920331
	ES 2124733	T3	19990216	ES 1992-912455	19920331
	JP 3053217	B2	20000619	JP 1992-500845	19920331
	AT 203148	E	20010815	AT 1992-912456	19920331
	ES 2159280	T3	20011001	ES 1992-912456	19920331
	<u>US 5469854</u>	A	19951128	US 1993-76239	19930611
	<u>US 5580575</u>	A	19961203	US 1993-76250	19930611
	<u>US 5348016</u>	A	19940920	US 1993-88268	19930707
	<u>US 5542935</u>	A	19960806	US 1993-160232	19931130
	<u>US 5585112</u>	A	19961217	US 1993-159687	19931130
	<u>US 5769080</u>	A	19980623	US 1994-199462	19940222

WO 9428874	A1	19941222	WO 1994-US5633	19940519
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5773024	A	19980630	US 1994-307305	19940916
CA 2177713	AA	19950608	CA 1994-2177713	19941130
WO 9515118	A1	19950608	WO 1994-US13817	19941130
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 09506098	T2	19970617	JP 1995-515763	19941130
EP 740528	B1	20030326	EP 1995-908414	19941130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5571497	A	19961105	US 1995-468056	19950606
CN 1180310	A	19980429	CN 1996-193069	19960327
CN 1102045	B	20030226		
US 6001335	A	19991214	US 1996-665719	19960618
US 5935553	A	19990810	US 1996-758179	19961125
US 5985246	A	19991116	US 1997-888426	19970708
AU 9856271	A1	19980507	AU 1998-56271	19980224
AU 713127	B2	19991125		
AU 9888405	A1	19981203	AU 1998-88405	19981012
AU 731072	B2	20010322		
HK 1013625	A1	20000420	HK 1998-114978	19981223
AU 9910043	A1	19990304	AU 1999-10043	19990104
PRAI US 1989-455707	B2	19891222		
US 1990-569828	A2	19900820		
US 1991-716899	B2	19910618		
US 1991-717084	A2	19910618		
US 1993-76239	A2	19930611		
US 1993-76250	A2	19930611		
US 1993-159674	B2	19931130		
US 1993-159687	A2	19931130		
US 1993-160232	A2	19931130		
US 1994-307305	A2	19940916		
WO 1990-US7500	W	19901219		
US 1991-716793	A	19910618		
US 1991-750877	A3	19910826		
US 1992-818069	A3	19920108		
WO 1992-US2610	W	19920331		
WO 1992-US2615	A	19920331		
US 1992-967974	A3	19921027		
US 1993-17683	A3	19930212		
US 1993-18112	B3	19930217		
US 1993-85608	A3	19930630		
US 1993-88268	A3	19930707		
US 1993-163039	A3	19931206		
US 1994-212553	B2	19940311		
AU 1994-70416	A3	19940519		
US 1994-346426	A	19941129		
AU 1995-21850	A3	19941130		
WO 1994-US13817	W	19941130		
US 1995-395683	A3	19950228		
US 1995-468056	A3	19950606		
US 1995-471250	A3	19950606		
US 1996-665719	A3	19960618		
AB	Gas and gaseous precursor filled microspheres, and foams provide novel topical and s.c. delivery vehicles for various active ingredients, including drugs and cosmetics. Gas and gaseous precursor filled microcapsules were prepd. from dipalmitoylphosphatidylcholine.			

ST microcapsule gas filled; topical microcapsule gas filled; subcutaneous microcapsule gas filled

IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acidic; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkylbenzyl dimethyl, chlorides; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiseptic; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Diglycerides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digalactosyl; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Alditols
Sterols
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Hydrocarbons, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fluoro; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Acacia
Alcohols, biological studies
Alkanes, biological studies
Allergy inhibitors
Amines, biological studies
Anthocyanins
Anti-inflammatory agents
Antibacterial agents
Antibiotics
Anticoagulants
Antioxidants
Antisense oligonucleotides
Antiviral agents
Bentonite, biological studies
Buffers
Canola oil
Carbohydrates, biological studies
Cardiovascular agents
Chelating agents
Collagens, biological studies
Coloring materials
Corn oil
Cosmetics
DNA
Diuretics
Dystrophin
Elastins
Enkephalins
Enzymes, biological studies
Essential oils
Esters, biological studies

Fatty acids, biological studies
 Fluoropolymers, biological studies
 Foaming agents
 Fungicides
 Gases
 Gene, animal
 Glycolipids
 Glycols, biological studies
 Growth factors, animal
 Hormones, animal, biological studies
 Immunosuppressants
 Lipids, biological studies
 Micelles
 Olive oil
 Peanut oil
 Peptides, biological studies
 Perfluorocarbons
 Petrolatum
 Phosphatidic acids
 Phosphatidylcholines, biological studies
 Phosphatidylethanolamines, biological studies
 Phosphatidylglycerols
 Phosphatidylinositols
 Phosphatidylserines
 Phospholipids, biological studies
 Polyamides, biological studies
 Polyesters, biological studies
 Polyolefins
 Polyoxyalkylenes, biological studies
 Polysaccharides, biological studies
 Polyurethanes, biological studies
 Preservatives
 Protozoacides
 Quaternary ammonium compounds, biological studies
 Radionuclides, biological studies
 Safflower oil
 Sphingolipids
 Sulfatides
 Sulfoxides
 Terpenes, biological studies
 Tocopherols
 Tuberculostatics
 Vitamins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (gas and gaseous precursor filled microspheres as topical and s.c.
 delivery vehicles)

IT Interleukin 2
 Interleukin 4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (genes, DNA encoding; gas and gaseous precursor filled microspheres as
 topical and s.c. delivery vehicles)

IT Anesthetics

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (local; gas and gaseous precursor filled microspheres as topical and
 s.c. delivery vehicles)

IT Drug delivery systems

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (microcapsules; gas and gaseous precursor filled microspheres as

- topical and s.c. delivery vehicles)
- IT Encapsulation
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microencapsulation; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
- IT Antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
- IT Drug delivery systems
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ointments; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
- IT Uronic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyuronic acids; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
- IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sugar esters; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
- IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-04-4, Cortisone acetate 50-23-7, Hydrocortisone 50-24-8 50-33-9, Phenylbutazone, biological studies 50-56-6, Oxytocin, biological studies 50-70-4, Sorbitol, biological studies 50-78-2, Aspirin 50-81-7, Ascorbic acid, biological studies 51-05-8, Procaine hydrochloride 51-34-3, Scopolamine 52-21-1 52-67-5, Penicillamine 53-03-2, Prednisone 53-36-1, Methylprednisolone acetate 53-86-1, Indomethacin 54-05-7, Chloroquine 54-11-5, Nicotine 54-85-3, Isoniazid 56-75-7, Chloramphenicol 56-81-5, 1,2,3-Propanetriol, biological studies 57-09-0, Cetyltrimethylammonium bromide 57-11-4, Octadecanoic acid, biological studies 57-13-6, Urea, biological studies 57-15-8, Chlorobutanol 57-55-6, 1,2-Propanediol, biological studies 57-88-5, Cholesterol, biological studies 58-08-2, Caffeine, biological studies 59-02-9, .alpha.-Tocopherol 60-00-4, Edta, biological studies 60-54-8, Tetracycline 61-32-5, Methicillin 61-33-6, Penicillin g, biological studies 61-68-7, Mefenamic acid 64-17-5, Ethanol, biological studies 65-49-6, p-Aminosalicylic acid 65-85-0, Benzoic acid, biological studies 66-79-5, Oxacillin 67-43-6, DTPA 67-56-1, Methanol, biological studies 67-68-5, DmsO, biological studies 67-78-7, Triamcinolone diacetate 68-19-9D, Cyanocobalamin, derivs. 68-41-7, Cycloserine 69-53-4, Ampicillin 69-72-7, Salicylic acid, biological studies 73-78-9, Lidocaine hydrochloride 74-88-4, Iodomethane, biological studies 74-98-6, Propane, biological studies 75-00-3, Chloroethane 75-10-5, Difluoromethane 75-18-3, Methyl sulfide 75-19-4, Cyclopropane 75-28-5, Isobutane 75-29-6, 2-Chloropropane 75-31-0, 2-Aminopropane, biological studies 75-34-3, 1,1-Dichloroethane 75-43-4, Dichlorofluoromethane 75-45-6, Chlorodifluoromethane 75-46-7, Trifluoromethane 75-56-9, biological studies 75-61-6, Dibromodifluoromethane 75-63-8, Bromotrifluoromethane 75-69-4, Trichlorofluoromethane 75-71-8, Dichlorodifluoromethane 75-72-9, Chlorotrifluoromethane 75-73-0, Tetrafluoromethane 76-13-1, 1,1,2-Trichloro-1,2,2-trifluoroethane 76-15-3, 1-Chloro-1,1,2,2,2-pentafluoroethane 76-16-4, Hexafluoroethane 76-19-7, Perfluoropropane 76-25-5, Triamcinolone acetonide 77-92-9, Citric acid, biological studies 78-78-4, 2-Methylbutane 78-79-5, biological studies 78-80-8 79-81-2, Retinol palmitate 80-08-0 83-43-2, Methylprednisolone 87-08-1, Penicillin v 87-73-0, Saccharic acid 93-60-7, Methyl

nicotinate 94-14-4, Isobutyl p-aminobenzoate 94-26-8, Butylparaben
 95-80-7, 2,4-Diaminotoluene 96-40-2, 3-Chlorocyclopentene 96-49-1,
 1,3-Dioxolan-2-one 98-96-4, Pyrazinamide 99-76-3,
 Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-71-6,
 biological studies 103-41-3, Benzyl cinnamate 106-98-9, 1-Butene,
 biological studies 106-99-0, 1,3-Butadiene, biological studies
 107-00-6, 1-Butyne 107-01-7, 2-Butene 107-25-5, Methyl vinyl ether
 107-41-5, Hexylene glycol 108-95-2, Phenol, biological studies
 109-66-0, n-Pentane, biological studies 109-67-1, 1-Pentene 109-92-2,
 Ethyl vinyl ether 109-93-3 110-27-0, Isopropyl myristate 110-44-1,
 Sorbic acid 111-02-4, Squalene 111-42-2, biological studies
 112-30-1, 1-Decanol 112-53-8, 1-Dodecanol 112-72-1, Myristyl alcohol
 112-80-1, 9-Octadecenoic acid (Z)-, biological studies 112-92-5,
 n-Octadecyl alcohol 114-07-8, Erythromycin 115-10-6, Methyl ether
 115-25-3, Octafluorocyclobutane 118-42-3, Hydroxychloroquine 118-58-1,
 Benzyl salicylate 121-54-0, Benzethonium chloride 122-18-9,
 Benzyldimethyl hexadecylammonium chloride 122-57-6, 4-Phenyl-3-butene-2-
 one 123-03-5 124-03-8, Cetyldimethylethylammonium bromide 124-38-9,
 Carbon dioxide, biological studies 124-40-3, Dimethylamine, biological
 studies 124-94-7, Triamcinolone 125-02-0, Prednisolone sodium
 phosphate 125-04-2, Hydrocortisone sodium succinate 126-07-8,
 Griseofulvin 126-18-1, Smilagenin 126-19-2, Sarsasapogenin 129-20-4,
 Oxyphenbutazone 130-95-0, Quinine 133-51-7, Meglumine antimonate
 136-47-0, Tetracaine hydrochloride 137-66-6, Ascorbyl palmitate
 139-07-1, Benzyldimethyldodecylammonium chloride 139-08-2,
 Benzyldimethyl tetradecylammonium chloride 140-72-7, Cetylpyridinium
 bromide 141-43-5, biological studies 143-28-2, Oleyl alcohol
 143-62-4, Digitoxigenin 147-52-4, Nafcillin 151-21-3, Sodium lauryl
 sulfate, biological studies 151-73-5, Betamethasone sodium phosphate
 154-21-2, Lincomycin 287-23-0, Cyclobutane 302-79-4, Retinoic acid
 334-99-6, Nitrosotrifluoromethane 335-02-4, Nitrotrifluoromethane
 335-05-7, Trifluoromethanesulfonyl fluoride 335-57-9, Perfluoroheptane
 338-65-8, 2-Chloro-1,1-difluoroethane 350-51-6, 3-Fluorostyrene
 353-36-6, Fluoroethane 353-85-5, Trifluoroacetonitrile 353-87-7,
 Bromodifluoronitrosomethane 354-25-6, 1-Chloro-1,1,2,2-tetrafluoroethane
 354-72-3, Nitrosopentafluoroethane 354-80-3, Perfluoroethylamine
 354-81-4, Nitropentafluoroethane 355-25-9, Decafluorobutane 355-42-0,
 Perfluorohexane 357-26-6, Perfluoro-1-butene 359-35-3,
 1,1,2,2-Tetrafluoroethane 360-89-4, Perfluoro-2-butene 371-67-5,
 1,1,1-Trifluorodiazooethane 371-77-7 371-78-8, Trifluoromethyl sulfide
 373-52-4, Bromofluoromethane 374-07-2, 1,1-Dichloro-1,2,2,2-
 tetrafluoroethane 376-87-4, Perfluoropent-1-ene 378-44-9,
 Betamethasone 420-45-1, 2,2-Difluoropropane 420-46-2,
 1,1,1-Trifluoroethane 421-56-7, Chlorodifluoronitromethane 421-83-0,
 Trifluoromethanesulfonyl chloride 423-26-7, Heptafluoro-1-nitrosopropane
 423-33-6, Propane, 1,1,1,2,2,3,3,heptafluoro-3-nitro- 430-53-5,
 1,1-Dichloro-2-fluoroethane 435-97-2, Phenprocoumon 443-48-1,
 Metronidazole 460-12-8, Butadiyne 460-13-9, 1-Fluoropropane
 461-68-7, Tetrafluoroallene 463-49-0, Allene 463-58-1, Carbonyl
 sulfide 463-82-1, Neopentane 465-65-6, Naloxone 465-99-6,
 Hederagenin 482-54-2, Cyclohexanediaminetetraacetic acid 503-17-3,
 2-Butyne 508-02-1, Oleanolic acid 508-99-6, Hydrocortisone cypionate
 514-36-3, Fludrocortisone acetate 521-13-1, Cholesterol butyrate
 526-95-4, Gluconic acid 532-32-1, Sodium benzoate 536-33-4,
 Ethionamide 540-54-5, 1-Chloropropane 547-64-8, Methyl lactate
 555-43-1, Glycerol tristearate 555-44-2, Glycerol tripalmitate
 555-45-3, Glycerol trimyristate 559-40-0, Octafluorocyclopentene
 563-45-1, 3-Methyl-1-butene 563-46-2, 2-Methyl-1-butene 582-25-2,

Potassium benzoate 590-19-2, 1,2-Butadiene 591-93-5, 1,4-Pentadiene 593-53-3, Fluoromethane 593-70-4, Chlorofluoromethane 593-98-6, Bromochlorofluoromethane 594-11-6, Methylcyclopropane 598-23-2, 3-Methyl-1-butyne 598-53-8, Methyl iso-propyl ether 598-56-1, 598-61-8, Methylcyclobutane 601-34-3, Cholesterol palmitate 623-84-7, Propylene glycol diacetate 624-72-6, 1,2-Difluoroethane 624-91-9, Methyl nitrite 625-04-7, 4-Amino-4-methylpentan-2-one 632-58-6, Tetrachlorophthalic acid 644-62-2 661-54-1, 3,3,3-Trifluoropropyne 661-97-2, 1,1,1,2,3,3-Hexafluoro-2,3 dichloropropane 677-56-5, 1,1,1,2,2,3-Hexafluoropropane 678-26-2, Perfluoropentane 684-16-2, Hexafluoro acetone 685-63-2, Hexafluoro-1,3-butadiene 689-97-4, Vinyl acetylene 692-50-2, Perfluoro-2-butyne 697-11-0, Perfluorocyclobutene 767-00-0, 4-Cyanophenol 768-94-5, Amantadine 822-16-2, Sodium stearate 921-13-1, Chlorodinitromethane

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 927-84-4, Trifluoromethyl peroxide 928-45-0, Butyl nitrate 929-59-9 931-91-9, Hexafluorocyclopropane 987-24-6, Betamethasone acetate 1070-11-7, Ethambutol hydrochloride 1119-94-4, Lauryltrimethylammonium bromide 1119-97-7, Myristyltrimethylammonium bromide 1177-87-3, Dexamethasone acetate 1180-43-4, Cholesterol isobutyrate 1191-96-4, Ethylcyclopropane 1256-86-6, Cholesterol sulfate 1314-13-2, Zinc oxide, biological studies 1321-10-4, Chlorocresol 1323-39-3, Propylene glycol monostearate 1323-83-7, Glycerol distearate 1327-43-1, Magnesium aluminum silicate 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1344-95-2, Calcium silicate 1397-89-3, Amphotericin b 1398-61-4, Chitin 1400-61-9, Nystatin 1404-04-2, Neomycin 1405-37-4, Capreomycin sulfate 1406-16-2, Vitamin d 1406-18-4, Vitamin e 1493-03-4, Difluoriodomethane 1597-82-6, Paramethasone acetate 1630-94-0, 1,1-Dimethylcyclopropane 1722-62-9, Mepivacaine hydrochloride 1759-88-2 1842-05-3, 1,1-Dichloro-1,2-difluoroethane **2022-85-7**, Flucytosine 2314-97-8, Iodotrifluoromethane 2366-52-1, 1-Fluorobutane 2375-03-3, Methylprednisolone sodium succinate 2392-39-4, Dexamethasone sodium phosphate 2462-63-7, Dioleoylphosphatidylethanolamine 2511-95-7, 1,2-Dimethyl-cyclopropane 2551-62-4, Sulfur hexafluoride 2644-64-6, Dipalmitoylphosphatidylcholine 2671-68-3, Lanosterol acetate **2809-21-4**, Etidronic acid 3116-76-5, Dicloxacillin 3385-03-3, Flunisolid 3485-14-1, Cyclacillin 3511-16-8, Hetacillin 3529-04-2, Benzyltrimethyl hexadecylammonium bromide 3810-74-0, Streptomycin sulfate 3858-89-7, Chloroprocaine hydrochloride 3992-98-1, Ergosterol palmitate 4539-70-2, Distearoylphosphatidylcholine 4697-36-3, Carbenicillin 4786-20-3, Crotonitrile 4901-75-1, 3-Ethyl-3-methyldiaziridine 5534-09-8, Beclomethasone dipropionate 5536-17-4, Vidarabine 5611-51-8, Triamcinolone hexacetonide 5714-22-7, Sulfur fluoride (S2F10) 6000-74-4, Hydrocortisone sodium phosphate 6556-12-3, Glucuronic acid 7047-84-9, Aluminum monostearate 7235-40-7, Beta carotene 7281-04-1, Benzyltrimethyldodecylammonium bromide 7440-01-9, Neon, biological studies 7440-15-5, Rhenium, biological studies 7440-24-6, Strontium, biological studies 7440-37-1, Argon, biological studies 7440-59-7, Helium, biological studies 7440-63-3, Xenon, biological studies 7440-65-5, Yttrium, biological studies 7553-56-2, Iodine, biological studies 7631-86-9, Silicon dioxide, biological studies 7637-07-2, Boron trifluoride, biological studies 7681-14-3, Prednisolone tebutate 7727-37-9, Nitrogen, biological studies 7732-18-5, Water, biological studies 7782-41-4, Fluorine, biological studies 7782-44-7, Oxygen,

biological studies 7783-82-6, Tungsten hexafluoride 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-65-1, Tragacanth 9000-69-5, Pectin 9001-78-9, Alkaline phosphatase 9002-06-6, Thymidine kinase 9002-18-0, Agar 9002-60-2, Corticotropin, biological studies 9002-61-3, Human chorionic gonadotropin 9002-62-4, Prolactin, biological studies 9002-68-0, FSH 9002-71-5, Thyrotropin 9002-76-0, Gastrin 9002-84-0, Polytetrafluoroethylene 9002-86-2, Polyvinylchloride 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-07-0, Polypropylene 9003-39-8, Povidone 9003-53-6, Polystyrene 9004-10-8, Insulin, biological studies 9004-34-6, Cellulose, biological studies 9004-53-9, Dextrin 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methylcellulose 9004-67-5, Methylcellulose 9004-98-2, Polyoxyethylene oleyl ether 9004-99-3, Polyoxyethylene stearate 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9005-37-2, Propylene glycol alginate 9005-38-3, Sodium alginate 9005-49-6, Heparin, biological studies 9005-64-5, Polysorbate 20 9005-65-6, Polysorbate 80 9005-66-7, Polysorbate 40 9005-67-8, Polysorbate 60 9005-79-2, Glycogen, biological studies 9005-82-7, Amylose 9007-12-9, Calcitonin 9007-27-6, Chondroitin 9007-92-5, Glucagon, biological studies 9011-14-7, Polymethylmethacrylate 9011-97-6, Cholecystokinin 9012-36-6, Agarose 9012-72-0, Glucan 9013-95-0, Levan 9014-63-5, Xylan 9026-93-1, Adenosine deaminase 9034-40-6, Luteinizing hormone releasing hormone 9035-81-8, Trypsin inhibitor 9036-88-8, Mannan 9037-22-3, Amylopectin 9037-55-2, Galactan 9037-90-5, Fructan 9046-38-2, Galacturonan 9046-40-6, Pectic acid 9050-04-8 9057-02-7, Pullulan 9060-75-7, L-Arabinan 9072-19-9, Fucoidan 10024-97-2, Nitrous oxide, biological studies 10549-91-4 11103-57-4, Vitamin a 11138-66-2, Xanthan gum 12001-79-5, Vitamin k 13264-41-0, Cetyltrimethylammonium chloride 13292-46-1, Rifampin 15686-71-2, Cephalixin 15687-27-1, Ibuprofen 17435-78-8, Cholesterol glucuronide 18010-40-7, Bupivacaine hydrochloride 18323-44-9, Clindamycin 18656-38-7, Dimyristoylphosphatidylcholine 18656-40-1, Dilauroylphosphatidylcholine 18773-88-1, Benzyltrimethyl tetradecylammonium bromide 19247-09-7 19600-01-2, Ganglioside gm 2 20947-95-9 22204-53-1, Naproxen 22494-42-4, Diflunisal 22916-47-8, Miconazole 24521-77-5 24634-61-5, Potassium sorbate 24764-97-4, 2-Bromobutyraldehyde 24937-47-1, Polyarginine 25038-59-9, Pet, biological studies 25104-18-1, Polylysine 25212-18-4, Polyarginine 25322-68-3 25322-69-4, Polypropylene glycol 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26171-23-3, Tolmetin 26266-57-9, Sorbitan monopalmitate 26787-78-0, Amoxicillin 27070-61-7, Hexafluoropropane 29593-08-6 30516-87-1, Azidothymidine 31362-50-2, Bombesin 31566-31-1, Glyceryl monostearate 33735-55-6 34077-87-7, Dichlorotrifluoroethane 34787-01-4, Ticarcillin 35602-69-8, Cholesterol stearate 36322-90-4, Piroxicam 36637-19-1, Etidocaine hydrochloride 36653-82-4, Cetyl alcohol 36791-04-5, Ribavirin 37266-93-6, Sucrose laurate 37318-31-3, Sucrose stearate 37330-34-0 37331-28-5, Pustulan 37377-93-8, .beta.-Lipotropin 37758-47-7, Ganglioside gml 38000-06-5, Polylysine 38194-50-2, Sulindac 38821-53-3, Cephadrine 39300-95-3, Sucrose palmitate 39422-22-5, .gamma.-Lipotropin 50370-12-2, Cefadroxil 50402-72-7, 2,3,6-Trimethylpiperidine 50972-17-3, Bacampicillin 53563-63-6, Glycerol dimyristate 53994-73-3, Cefaclor 57223-18-4, 1-Nonen-3-yne 57916-92-4, Carbomer 934p 59227-89-3, Azone 59277-89-3, Acyclovir 60095-23-0 60495-58-1, Galactocarolose 64612-25-5, Fucan 65277-42-1, Ketoconazole 67382-96-1, Melanin concentrating hormone 67896-63-3,

Dipentadecanoylphosphatidylcholine 68302-57-8, Amlexanox 68354-92-7
 68354-99-4 68737-67-7, Dioleoylphosphatidylcholine 69992-87-6, Keratan
 73294-85-6 75634-40-1, Dermatan 76822-97-4 79217-60-0, Cyclosporin
 98023-09-7 106392-12-5, Poloxamer 108173-78-0 109144-61-8.
 113669-21-9 116632-15-6, 1,2,3-Nonadecane-tricarboxylic
 acid-2-hydroxytrimethylester 117076-33-2 118248-91-2 127512-30-5,
 Cholesteryl(4'-trimethylammonio)butanoate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (gas and gaseous precursor filled microspheres as topical and s.c.
 delivery vehicles)

IT 132172-61-3 161293-59-0 161441-83-4 172261-50-6 172261-51-7
 172261-52-8 172261-53-9 172261-54-0 172261-55-1 172261-56-2
 172261-57-3 172261-58-4 173855-10-2 186198-32-3 205645-72-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (gas and gaseous precursor filled microspheres as topical and s.c.
 delivery vehicles)

IT 9002-79-3, Melanocyte stimulating hormone

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (genes, DNA encoding; gas and gaseous precursor filled microspheres as
 topical and s.c. delivery vehicles)

IT 9054-89-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (manganese-dependent; gas and gaseous precursor filled microspheres as
 topical and s.c. delivery vehicles)

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- (289) Unger; US 5305757 1994
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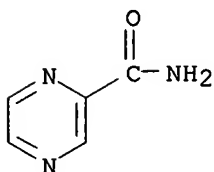
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IT 98-96-4, Pyrazinamide

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c.
delivery vehicles)

RN 98-96-4 HCAPLUS

CN Pyrazinecarboxamide (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 24 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:123988 HCAPLUS

DN 128:196477

TI Nail strengthening compositions containing permeation/binding agent, thio
crosslinking agent, and chelating agent

IN Wolf, Barbara A.; Radice, William J.; Moaddel, Teanoosh; Ferone, James J.

PA Revlon Consumer Products Corporation, USA

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-00

ICS A61K007-04; A61K007-043

CC 62-4 (Essential Oils and **Cosmetics**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9806376	A1	19980219	WO 1997-US14329	19970814
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5785959	A	19980728	US 1996-698585	19960816
	AU 9740674	A1	19980306	AU 1997-40674	19970814
	ZA 9707362	A	19980219	ZA 1997-7362	19970815
	US 5925366	A	19990720	US 1998-84612	19980526
PRAI	US 1996-698585	A	19960816		
	WO 1997-US14329	W	19970814		

AB A nail strengthening compn. comprising, by wt. of the total compn. (a) 0.1-60 % by wt. of a permeation/binding agent, (b) 0.001-20 % of a thio crosslinking agent, and (c) 0.001-20 % of a chelating agent. A nail strengthening compns. contained nitrocellulose 17.7, Bu acetate 27.2, Et acetate 27.0, iso-Pr alc. 8.0, glyceryl tribenzoate 13.1, linoleic acid 4.8, 10% soln. phytic acid 0.1, thiooctic acid 0.1, stearylalkonium bentonite 1.0, and 2,5-dibutylphenyl-3,5-di-tert-butyl-4-hydroxy benzoate 1.0%.

ST nail strengthening compn permeation binding agent; crosslinking agent
chelating agent nail strengthening

IT Permeation

(agents for; nail strengthening compns. contg. permeation/binding
agent, thio crosslinking agent, and chelating agent)

- IT Amides, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (alkoxy-; nail strengthening compns. contg. permeation/binding agent,
 thio crosslinking agent, and chelating agent)
- IT Cosmetics
 (nail lacquers; nail strengthening compns. contg. permeation/binding
 agent, thio crosslinking agent, and chelating agent)
- IT Binders
 Chelating agents
 Crosslinking agents
 Emulsifying agents
 Humectants
 (nail strengthening compns. contg. permeation/binding agent, thio
 crosslinking agent, and chelating agent)
- IT Amines, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (polyamines, nonpolymeric; nail strengthening compns. contg.
 permeation/binding agent, thio crosslinking agent, and chelating agent)
- IT Polyphosphoric acids
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (sodium salts; nail strengthening compns. contg. permeation/binding
 agent, thio crosslinking agent, and chelating agent)
- IT Jojoba oil
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (sulfurized; nail strengthening compns. contg. permeation/binding
 agent, thio crosslinking agent, and chelating agent)
- IT 52-90-4, Cysteine, biological studies 56-89-3, Cystine, biological
 studies 58-85-5, Biotin 60-00-4, Edta, biological studies 62-33-9,
 Calcium disodium EDTA 63-68-3, Methionine, biological studies 64-02-8,
 Tetrasodium EDTA 65-82-7D, Acetylmethionine, silver complex
 67-03-8, Thiamine hydrochloride 67-42-5, EGTA 67-43-6,
 Pentetic acid 67-71-0, Dimethyl sulfone 68-11-1, Thioglycolic acid,
 biological studies 70-18-8, Glutathione, biological studies 71-44-3,
 Spermine 83-86-3, Phytic acid 96-27-5, Thioglycerin 97-24-5
 103-04-8, Phenylthioglycolic acid 123-28-4, Dilauryl thiodipropionate
 123-93-3, Thiodiglycolic acid 126-97-6, Ethanolamine thioglycolate
 132-65-0, Dibenzothiophene 139-33-3, Disodium EDTA 139-41-3
 139-89-9, Trisodium HEDTA 140-01-2, Pentasodium pentetate 140-07-8
 147-93-3, Thiosalicylic acid 150-38-9, Trisodium EDTA 150-39-0, Hedta
 156-57-0, Cysteamine hydrochloride 367-51-1, Sodium thioglycolate
 482-54-2, Cyclohexanediamine tetraacetic acid 496-65-1, Pantetheine
 505-73-7, Dithiodiglycolic acid 527-07-1, Sodiumgluconate
 532-43-4, Thiamine nitrate 638-23-3, Carbocysteine 693-36-7,
 Distearyl thiodipropionate 814-71-1, Calcium thioglycolate 1077-28-7,
 Thiocetic acid 2001-94-7, Dipotassium EDTA 2235-43-0 2809-21-4
 , Etidronic acid 3012-65-5, Diammonium citrate 3287-12-5, Dicetyl
 thiodipropionate 3696-28-4 3794-83-0, Tetrasodium etidronate
 5064-31-3, Trisodium NTA 5261-23-4, Tetrahydroxypropyl ethylenediamine
 5421-46-5, Ammonium thioglycolate 6419-19-8, Aminotrimethylene
 phosphonic acid 6834-92-0, Sodium metasilicate 7320-34-5,
 Tetrapotassium pyrophosphate 7440-22-4D, Silver, acetylmethionine
 complex, biological studies 7601-54-9, Trisodium phosphate 7722-88-5,
 Tetrasodium pyrophosphate 7758-16-9, Disodium pyrophosphate 7758-29-4,
 Pentasodium triphosphate 10361-03-2, Sodiummetaphosphate 10595-72-9

12619-70-4, Cyclodextrin 12619-70-4D, Cyclodextrin, Me ethers
 13081-34-0 13419-67-5 13845-36-8, Pentapotassium triphosphate
 14618-65-6, Thiodiglycolamide 14974-53-9, Glyceryl thioglycolate
 15534-95-9, Dimethylol ethylene thiourea 15922-78-8, Sodium pyrithione
 16545-54-3, Dimyristyl thiodipropionate 16816-67-4, Pantethine
 17572-97-3, TripotassiumEDTA 17627-10-0 20824-56-0, Diammonium EDTA
 25103-09-7, Isooctyl thioglycolate 30232-12-3, Mercaptopropionic acid
 31694-55-0D, phosphate, sodium salts 34452-51-2, Potassium thioglycolate
 41760-23-0, Dicapryloyl cystine 57601-56-6 59219-69-1 60752-63-8
 66558-66-5 68223-93-8, Diammonium dithiodiglycolate 86827-92-1
 102868-96-2 105883-48-5 105883-51-0 105883-52-1 126094-21-1
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(nail strengthening compns. contg. permeation/binding agent, thio
 crosslinking agent, and chelating agent)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Dybas; US 4061775 A 1977

(3) Rawlings; US 5472698 A 1995 HCAPLUS

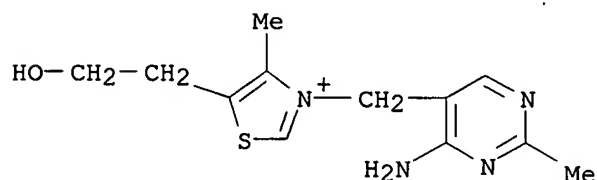
IT 67-03-8, Thiamine hydrochloride

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(nail strengthening compns. contg. permeation/binding agent, thio
 crosslinking agent, and chelating agent)

RN 67-03-8 HCAPLUS

CN Thiazolium, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-
 4-methyl- chloride, monohydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

● HCl

L70 ANSWER 25 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:547260 HCAPLUS

DN 127:150173

TI Reactive dye aqueous compositions with good storability and dyeing and
 printing therewith

IN Yamate, Shinichi; Tokieda, Takemi; Yabushita, Shinichi; Nishimura, Shinji

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

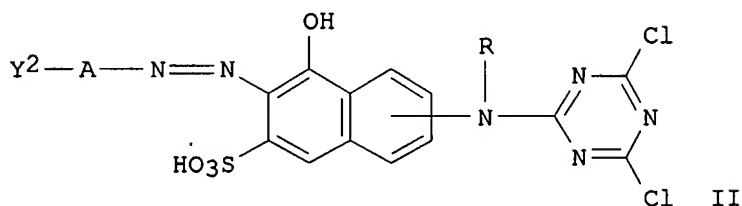
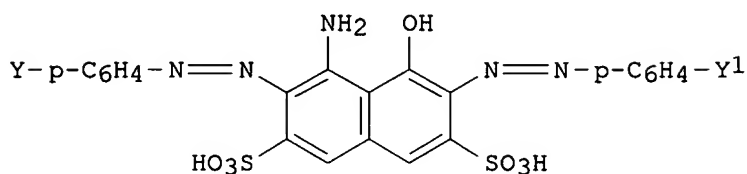
CODEN: JKXXAF

DT Patent

LA Japanese
 IC ICM C09B067-22
 ICS C09B067-44; D06P003-66
 CC 40-6 (Textiles and Fibers)
 Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09169923	A2	19970630	JP 1995-330332	19951219
PRAI	JP 1995-330332		19951219		
OS	MARPAT 127:150173				
GI					



AB The title compns. contain reactive dyes of free-acid form I and II in 1:0.05-0.8 ratio [Y, Y1, Y2 = SO2CH:CH2, SO2CH2CH2Z; Z = alkali-removable group; A = (un)substituted phenylene, naphthylene; R = H, (un)substituted lower alkyl], with addn. of 0.1-30% pH buffer, 0.1-30% redn. preventer, at pH 2.5-7. A compn. of C.I. Reactive Black 5 25, II (N bonding at the 7-position; R = H; A = p-C6H4; Y2 = 2-sodiosulfoethylsulfonyl) 16, and C.I. Reactive Yellow 145 1 part was mixed with 3% Na citrate and 3% Na m-nitrobenzenesulfonate and dissolved in 50 parts water with pH adjusted to 4.0 to give a compn. storable >1 mo at 40.degree..

ST reactive azo dye mixt storability; redn preventer reactive azo dye

IT Reduction

(preventers; reactive dye aq. compns. with good storability and dyeing and printing therewith)

IT Buffers

Dyeing

Reactive azo dyes

Textile printing

(reactive dye aq. compns. with good storability and dyeing and printing therewith)

IT 62-76-0, Sodium oxalate 127-08-2, Potassium acetate 127-09-3, Sodium acetate 127-68-4, Sodium 3-nitrobenzenesulfonate 141-95-7, Sodium malonate 877-24-7, Potassium hydrogen phthalate 994-36-5, Sodium citrate 1321-69-3, Sodium naphthalenesulfonate 7558-79-4, Disodium

phosphate 7558-80-7, Monosodium phosphate 7601-89-0, Sodium perchlorate 7632-00-0, Sodium nitrite 7758-11-4, Dipotassium phosphate 7775-09-9, Sodium chlorate 7778-77-0, Monopotassium phosphate 10043-22-8, Potassium oxalate 11105-06-9, Sodium vanadate 12712-38-8, Potassium borate 13840-56-7, Sodium borate

~~14047-56-4~~ 14475-11-7, Sodium tartrate, uses 15630-89-4, Sodium percarbonate 135597-64-7

RL: MOA (Modifier or additive use); USES (Uses)

(reactive dye aq. compns. with good storability and dyeing and printing therewith)

IT 12731-60-1, C.I. Reactive Black 25 93050-80-7, C.I. Reactive Yellow 145 **193222-36-5**

RL: TEM (Technical or engineered material use); USES (Uses)

(reactive dye aq. compns. with good storability and dyeing and printing therewith)

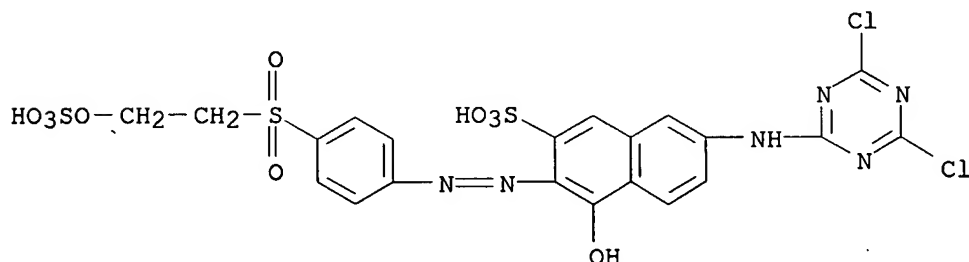
IT **193222-36-5**

RL: TEM (Technical or engineered material use); USES (Uses)

(reactive dye aq. compns. with good storability and dyeing and printing therewith)

RN 193222-36-5 HCAPLUS

CN 2-Naphthalenesulfonic acid, 7-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L70 ANSWER 26 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:296686 HCAPLUS

DN 126:278955

TI Reactive derivatives of sulforhodamine 101 with enhanced hydrolytic stability, their conjugates, and labeling kits containing them

IN Haugland, Richard P.; Szalecki, Wojciech

PA Molecular Probes Inc, USA

SO Brit. UK Pat. Appl., 53 pp.

CODEN: BAXXDU

DT Patent

LA English

IC ICM C09B062-002

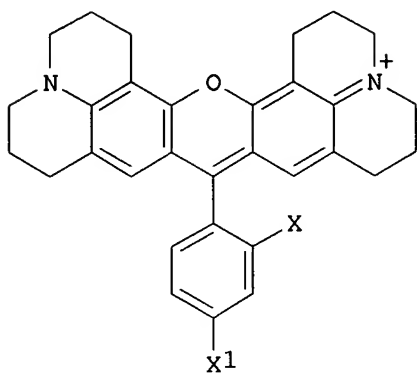
ICS C07H019-10; C07J043-00; C07K004-00; C08B037-02; C09B057-14

CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 9

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2302094	A1	19970108	GB 1996-11997	19960607
	GB 2302094	B2	19990317		
	US 5798276	A	19980825	US 1995-485033	19950607
PRAI	US 1995-485033		19950607		
OS	MARPAT 126:278955				
GI					



- AB The reactive fluorescent dyes have an alkyl spacer attached via a sulfonamide bond to a sulforhodamine 101 fluorophore, and form a variety of conjugates which are useful in the detection of a complementary member of a binding pair. The increased length of the covalent **linkage** due to the alkyl spacer results in dye conjugates having enhanced soly. and increased fluorescence. The reactive dyes are of the formula I [X or X1 is SO3-; X or X1 is SO2NR1(CH2)nR; R is a reactive group; R1 is H, C1-6 alkyl, or C1-6 acyl; n is 1-8]. The dyes are useful for selective modification of groups other than amines, including thiols and photoreactive derivs.
- ST sulforhodamine deriv fluorescent label; sulfonamide deriv sulforhodamine dye
- IT Immunoglobulins
 RL: **SPN (Synthetic preparation); PREP (Preparation)**
 (G, goat antimouse, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)
- IT Phycoerythrins
 RL: **SPN (Synthetic preparation); PREP (Preparation)**
 (R-phycoerythrins, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)
- IT Amino acids, preparation
 DNA
 Oligonucleotides
 Peptides, preparation
 Proteins, specific or class
 RL: **SPN (Synthetic preparation); PREP (Preparation)**
 (conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)
- IT Glycoconjugates
 RL: **SPN (Synthetic preparation); PREP (Preparation)**
 (fluorescent conjugates of reactive derivs. of sulforhodamine 101)
- IT Fluorescent dyes

Reactive dyes

(reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT Albumins, preparation

RL: **SPN (Synthetic preparation); PREP (Preparation)**

(serum, bovine, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 9013-20-1DP, Streptavidin, conjugates

RL: **ARG (Analytical reagent use); SPN (Synthetic preparation);****ANST (Analytical study); PREP (Preparation); USES (Uses)**

(fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 9004-54-ODP, Dextran, conjugates with reactive sulforhodamine derivs., preparation 9031-11-2DP, .beta.-Galactosidase, conjugates with reactive sulforhodamine derivs. 17466-45-4DP, Phalloidin, conjugates with reactive sulforhodamine derivs. 37293-51-9DP, Aminodextran, conjugates with reactive sulforhodamine derivs. 93801-19-5DP, conjugates with reactive sulforhodamine derivs. 150205-70-2DP, conjugates with reactive sulforhodamine derivs.

RL: **SPN (Synthetic preparation); PREP (Preparation)**

(fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 178623-11-5P 188828-09-3P 188828-14-0P 188828-16-2P 188828-20-8P

188828-22-0P 188828-40-2P 188828-42-4P **188828-44-6P****188828-46-8P**RL: **IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)**

(isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188828-11-7P 188828-12-8P 188828-32-2P 188828-35-5P 188828-37-7P

188828-39-9P 188828-48-0P 188828-50-4P 188828-54-8P 188828-56-0P

RL: **IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**

(isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188901-84-0P

RL: **IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)**

(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 178623-10-4P 188828-07-1P 188828-24-2P 188828-26-4P

RL: **IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)**

(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188828-28-6P 188828-30-0P

RL: **IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**

(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 108-31-6, 2,5-Furandione, reactions **108-77-0**, Cyanuric chloride 598-21-0, Bromoacetyl bromide 876-08-4, 4-(Chloromethyl)benzoyl chloride 923-61-5, 2780-89-4, Methyl 6-aminohexanoate 82354-19-6, Texas Red 105832-38-0, O-(N-Succinimidyl)-N,N,N',N'-tetramethyluronium~~**tetrafluoroborate** 106627-54-7 126695-58-7 188828-18-4~~

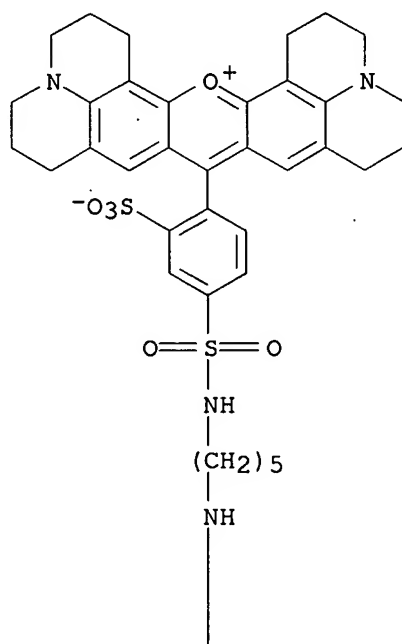
188828-52-6 188858-36-8

RL: **RCT (Reactant); RACT (Reactant or reagent)**

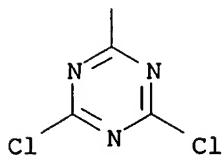
(prepn. of reactive derivs. of sulforhodamine 101 with enhanced

hydrolytic stability)
 IT **188828-44-6P**
 RL: **IMF (Industrial manufacture)**; RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
 (isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)
 RN 188828-44-6 HCAPLUS
 CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[4-[[[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]pentyl]amino]sulfonyl]-2-sulfophenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

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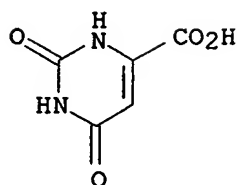


L70 ANSWER 27 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1994:330823 HCAPLUS
 DN 120:330823
 TI Cosmetic compositions with stabilized redox potential containing hydrosoluble metal salts
 IN Rocher, Daniel; Noel, Hugues

PA Daniel Jouvance, Fr.
 SO Eur. Pat. Appl., 6 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 IC ICM A61K007-48
 ICS A61K007-00; A45D040-00
 CC 62-4 (Essential Oils and **Cosmetics**)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 595690	A1	19940504	EP 1993-402589	19931021
	EP 595690	B1	19970108		
	R: BE, CH, DE, ES, GB, GR, IT, LI, NL, PT				
	FR 2697161	A1	19940429	FR 1992-12745	19921026
	FR 2697161	B1	19950113		
	US 5547676	A	19960820	US 1993-135475	19931013
	ES 2096248	T3	19970301	ES 1993-402589	19931021
	CN 1090168	A	19940803	CN 1993-119563	19931025
	CN 1042097	B	19990217		
	JP 06211641	A2	19940802	JP 1993-288786	19931026
PRAI	FR 1992-12745		19921026		
AB	Cosmetic compns. with stabilized redox potential contg. hydrosol. metal salts are prepd. An antiwrinkle cream contained Zn pyrrolidonecarboxylate 1.00, glycerin 1.00, 1,3-butanediol 5.00, Na lactate 0.50, Na cetylsulfate 2.50, isoamyl paramethoxycinnamate 2.00, .gamma.-orizanol 1.00, ethylhexyl laurate 17.00, pentaerythritol 3.00, 1,2-propanediol diethylhexanoate 6.50, vaseline 8.00, jojoba oil 4.4, PEG stearate 0.75, sorbitan monostearate 1.50, deodecamethylcyclhexasiloxane 4.00, tocopherols 0.10, retinol 0.15, polyacrylamide 0.60, DNA 0.3, 3% collagen 3.00 perfume q.s. preservative q.s., and water q.s. 100%.				
ST	cosmetic stability redox potential metal salt; antiwrinkle cream zinc pyrrolidonecarboxylate				
IT	Cosmetics Sunscreens (hydrosol. metal salts in, with stabilized redox potential)				
IT	Cosmetics (creams, wrinkle-preventing, hydrosol. metal salts in, with stabilized redox potential)				
IT	60-00-4D, Edta, metal salts 65-86-1D, Orotic acid, metal salts 67-43-6D, Dtpa, metal salts 69-93-2D, Uric acid, metal salts 83-86-3D, Phytic acid, metal salts 150-39-0D, HEDTA, metal salts 2809-21-4D, Etidronic acid, metal salts 7439-89-6D, Iron, salts 7439-96-5D, Manganese, salts 7439-98-7D, Molybdenum, salts 7440-02-0D, Nickel, salts 7440-32-6D, Titanium, salts 7440-50-8D, Copper, salts 7440-62-2D, Vanadium, salts 7440-66-6D, Zinc, salts 7664-41-7D, Ammonia, salts 7782-49-2D, Selenium, salts 15454-74-7 15454-75-8 RL: BIOL (Biological study) (cosmetic compns. with stabilized redox potential contg.)				
IT	65-86-1D, Orotic acid, metal salts RL: BIOL (Biological study) (cosmetic compns. with stabilized redox potential contg.)				
RN	65-86-1 HCAPLUS				
CN	4-Pyrimidinecarboxylic acid, 1,2,3,6-tetrahydro-2,6-dioxo- (9CI) (CA INDEX NAME)				

X



L70 ANSWER 28 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:22873 HCAPLUS

DN 116:22873

TI Preparation of storage-stable anionic reactive dye aqueous solutions

IN Michna, Martin; Zillger, Werner; Tegtmeyer, Dietrich

PA Bayer A.-G., Germany

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C09B067-54

ICA C09B067-26

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 446732	A2	19910918	EP 1991-103157	19910302
	EP 446732	A3	19920520		
	R: CH, DE, FR, GB, LI				
	DE 4008262	A1	19910919	DE 1990-4008262	19900315
	<u>US 5145485</u>	A	19920908	US 1991-665630	19910306
PRAI	DE 1990-4008262		19900315		

OS MARPAT 116:22873

AB The solns. are obtained by pressure permeation of solns. or suspensions of the crude dyes by the steps of desalination and optionally concn., using boric acid or its salts. The borate improves the filtrate flow rate. Thus, 190 kg of a suspension contg. 5.3% crude 7-(5-chloro-2,6-difluoro-4-pyrimidinylamino)-4-hydroxy-3-[(4-methoxy-2-sulfophenyl)azo]-2-naphthalenesulfonic acid Li Na salt and 1 kg H3BO3 was desalted by permeation using a polysulfone-supported polyamide membrane at pH 7.5, temp. 45.degree., and pressure 30 bars to give 95 kg dye conc. This conc. was combined with 2 kg dicyandiamide and 2.5 kg demineralized water and buffered with 0.5 kg boric acid. The resulting liq. contained .apprx.10% pure dye and was storage stable.

ST reactive azo dye soln stability; boric acid filtration dye concIT Dyes, reactive

(azo, anionic, prepn. of storage-stable aq. solns. of, boric acid or borate salts in)

IT 72139-17-4 72828-73-0 105037-51-2
138088-74-1

RL: USES (Uses)

(dye, prepn. of storage-stable solns. of, boric acid or borate salts in)

IT 10043-35-3, Boric acid, uses

RL: USES (Uses)

(in prepn. of storage-stable aq. solns. of reactive dyes)

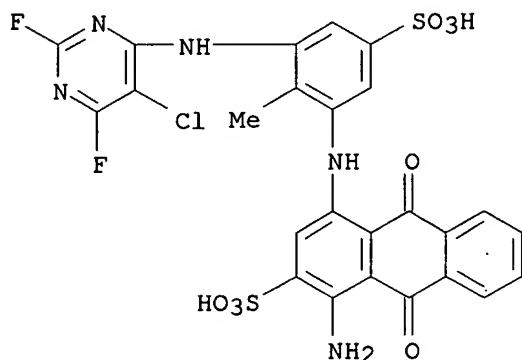
IT 72139-17-4

RL: USES (Uses)

(dye, prepn. of storage-stable solns. of, boric acid or borate salts in)

RN 72139-17-4 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methyl-5-sulphophenyl]amino]-9,10-dihydro-9,10-dioxo-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

L70 ANSWER 29 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:516259 HCAPLUS

DN 115:116259

TI Reactive dye compositions for dyeing and printing of cellulosic fibers

IN Harada, Naoki; Yoshikawa, Sadanobu; Tokieda, Takemi; Hashizume, Shuhei; Miyamoto, Tetsuya

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B062-51

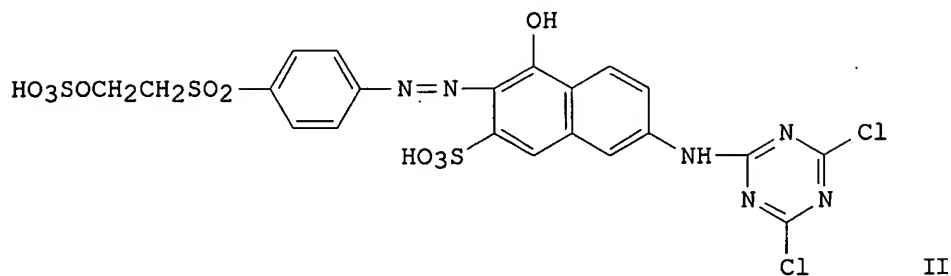
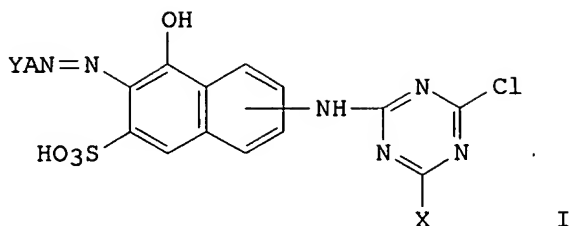
ICS C09B067-26

CC 40-6 (Textiles and Fibers)

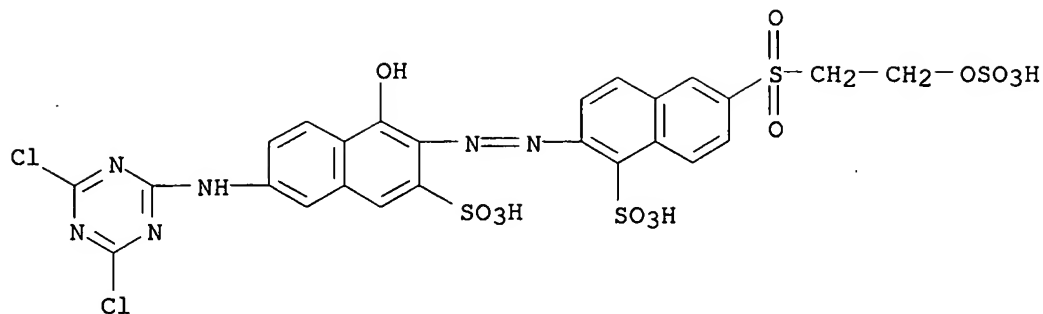
Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03064370	A2	19910319	JP 1989-201561	19890802
PRAI	JP 1989-201561		19890802		
OS	MARPAT 115:116259				
GI					



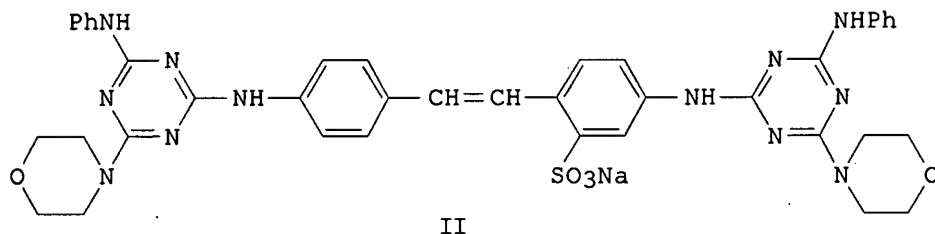
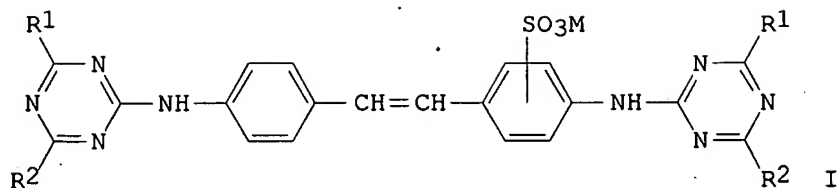
- AB The title compns., with good storage stability, contain the azo dyes I [A = Ph, ClOH7, or deriv.; X = Cl, OH; Y = vinylsulfonyl, SO₂CH₂CH₂Z (Z = alkali-cleavable group)] and <30% (based on dye) buffers giving aq. dispersions with pH 3-8. An aq. dispersion of 17 parts reactive dye II and 2.8 parts NaH₂PO₄·2H₂O was adjusted to pH 5.5 with Na₂CO₃ and spray-dried to give a compn. showing no adverse effects in dyeing of cellulose after >1 mo storage.
- ST buffer reactive azo dye; phosphate buffer reactive dye; reactive dye storage stable; J acid reactive dye; chlorotriazine deriv reactive dye
- IT Buffer substances and systems
(for storage-stable reactive dye compns.)
- IT **Textile printing**
(storable-stable buffered reactive azo dye compns. for)
- IT Dyes, reactive
(azo, storage-stable buffered compns. of)
- IT 127-08-2, Potassium acetate 127-09-3, Sodium acetate 583-52-8, Potassium oxalate 877-24-7, Potassium hydrogen phthalate 1333-73-9, sodium borate 7558-79-4, Disodium phosphate 7558-80-7, Monosodium phosphate 7758-11-4, Dipotassium phosphate 7778-77-0, Monopotassium phosphate 10043-22-8, Potassium oxalate 12712-38-8, Potassium borate 135597-64-7
RL: USES (Uses)
(buffers, for storage-stable reactive dye compns.)
- IT 117715-56-7 117715-58-9 117715-71-6
131673-10-4 131673-12-6 135729-23-6
135729-24-7 135729-25-8 135755-48-5
RL: USES (Uses)
(dyes, storage-stable buffered compns. of)
- IT 117715-56-7
RL: USES (Uses)
(dyes, storage-stable buffered compns. of)
- RN 117715-56-7 HCAPLUS
- CN 1-Naphthalenesulfonic acid, 2-[[6-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-6-[[2-(sulfooxy)ethyl]sulfonyl]-
(9CI) (CA INDEX NAME)



L70 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1989:40501 HCAPLUS
 DN 110:40501
 TI Diaminostilbene derivative fluorescent brighteners
 IN Farrar, John Martin
 PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 11 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07D251-68
 ICS C07D251-46; C07D251-52; D06L003-12; C07C143-62
 ICA C11D003-42
 CC 41-10 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3805513	A1	19880901	DE 1988-3805513	19880222
	FR 2611365	A1	19880902	FR 1988-2101	19880219
	CH 676000	A	19901130	CH 1988-631	19880219
	<u>GB 2203426</u>	A1	19881019	GB 1988-4056	19880222
	JP 63233979	A2	19880929	JP 1988-38770	19880223
PRAI	GB 1987-4328		19870224		
OS	CASREACT 110:40501; MARPAT 110:40501				
GI					



- AB Title compds. I (M = H, colorless cation; R1, R2 = halogen, NR3R4, OR3, SME; (un)substituted Ph, (un)substituted C1-4 alkyl; R4 = H, C1-4 alkyl, substituted C2-4 alkyl, C1-4 alkylphenyl; or NR3R4 = a N-contg. heterocycle), useful as fluorescent brighteners for **textiles** and paper, are prepd. by the condensation of cyanuric chloride derivs. with diaminosulfostilbene derivs., followed by condensation with the appropriate protic compds. 4-H2NC6H4CH:CHC6H4(SO3Na)NH2-2,4 was condensed with cyanuric chloride, and the intermediate condensed with PhNH2 and morpholine, producing II.
- ST diaminostilbene deriv fluorescent brightener manuf; **textile**
diaminostilbene deriv fluorescent brightener; paper diaminostilbene deriv fluorescent brightener
- IT Fluorescent brighteners
(bis(triazinylamino)sulfostilbene derivs., manuf. of, for paper and **textiles**)
- IT 62-53-3, Aniline, reactions 110-91-8, Morpholine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride derivs.)
- IT 108-77-0, Cyanuric chloride
RL: USES (Uses)
(condensation of, with sodium diaminostilbenesulfonate)
- IT 102269-58-9P
RL: PREP (Preparation)
(manuf. of, as fluorescent brightener for paper or **textiles**)
- IT 3709-43-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of)
- IT 118382-08-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with cyanuric chloride)
- IT 1080-32-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and nitration of)
- IT 5428-53-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with di-Et **nitrobenzylphosphonate**)

IT 2609-49-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction of, with sodium formylnitrobenzenesulfonic acid)

IT 118382-06-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and redn. of)

IT 118382-07-3P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

IT 35649-03-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with nitrobenzaldehyde)

IT 122-52-1, Triethylphosphite
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with nitrobenzyl bromide)

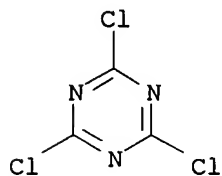
IT 99-99-0, p-Nitrotoluene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with sodium formylnitrobenzenesulfonate)

IT 100-11-8, 4-Nitrobenzylbromide 100-44-7, Benzyl chloride, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with tri-Et phosphite)

IT 108-77-0, Cyanuric chloride
 RL: USES (Uses)
 (condensation of, with sodium diaminostilbenesulfonate)

RN 108-77-0 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trichloro- (9CI) (CA INDEX NAME)



L70 ANSWER 31 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1987:121391 HCAPLUS

DN 106:121391

TI Aqueous liquid reactive dye composition

IN Yamauchi, Noriaki; Ikeou, Shinnei; Imada, Kunihiro

PA Sumitomo Chemical Co., Ltd., Japan

SO Eur. Pat. Appl., 29 pp.
 CODEN: EPXXDW

DT Patent

LA English

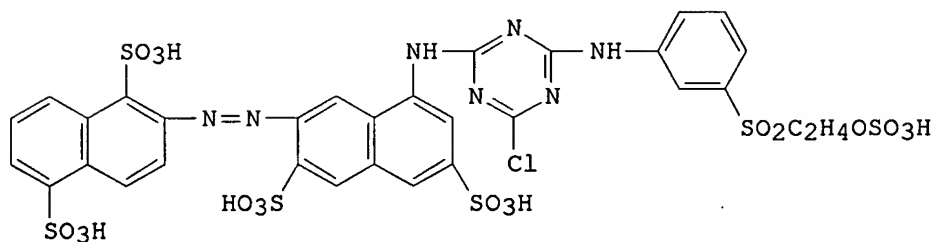
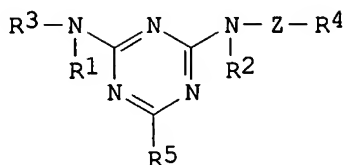
IC ICM C09B067-26
 ICS D06P001-38

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	EP 208829	A1	19870121	EP 1986-102064	19860218

EP 208829 B1 19901227
 EP 208829 B2 19980408
 R: BE, CH, DE, FR, GB, IT, LI, NL, SE
 JP 62018473 A2 19870127 JP 1985-157337 19850717
 JP 2517220 B2 19960724
 US 4693725 A 19870915 US 1986-831300 19860220
~~US 4834771~~ A 19890530 US 1986-836719 19860306
 PRAI JP 1985-157337 19850717
 GI



- AB The title compns. contain bifunctional reactive dyes I [R1, R2 = H, (un)substituted lower alkyl; R3 = org. dye residue having .gtoreq.1 sulfonic acid group; R4 = SO2CH:CH2, SO2CH2CH2R6; R6 = alkali-cleavable group; R5 = halo; Z = (un)substituted phenylene or naphthylene], in an amt. 5-50% based on the wt. of the liq. compn., are storage-stable, and have pH values 3-7. A 900-part clear dye soln., contg. 22.2% II, was added to 15 parts NaOAc.3H2O, and the whole made to 1000 parts with H2O producing an aq. liq. dye compn. of pH 5.5 which dyed **cotton** fabric in a red shade by conventional exhaustion, or padding processes.
- ST bifunctional reactive dye liq compn; **cotton** fabric bifunctional reactive dye; halotriazine contg bifunctional reactive dye
- IT Dyes, reactive
 (bifunctional, azo, manuf. of aq. liq. compns. contg., with high storage stability)
- IT **Textile printing**
 (on **cotton**, aq. liq. bifunctional reactive dye compns. for, manuf. of)
- IT 80156-97-4 80315-16-8 81494-14-6
 101362-38-3 104256-91-9 105936-66-1
 105956-68-1 107143-02-2 107143-06-6
 107143-07-7 107143-08-8 107143-09-9
 107143-10-2 107143-11-3 107143-12-4
 107198-76-5 107198-77-6 107221-77-2
 RL: USES (Uses)
 (aq. liq. dye compns. contg., manuf. of)
- IT 147-14-8D, sulfonated, chlorotriazine derivs.
 RL: USES (Uses)
 (aq. liq. reactive dye compns. contg., manuf. of)
- IT 62-76-0, Sodium oxalate 127-08-2, Potassium acetate 127-09-3, Sodium

acetate 583-52-8, Potassium oxalate 877-24-7, Potassium
hydrogenphthalate 1330-43-4 1332-77-0, Potassium borate
7558-79-4, Disodium hydrogenphosphate 7558-80-7, Sodium
dihydrogenphosphate 7758-11-4, Dipotassium hydrogenphosphate
7778-77-0, Potassium dihydrogenphosphate

RL: USES (Uses)

(buffer, aq. liq. bifunctional reactive dye compns. contg.)

IT 2494-88-4

RL: USES (Uses)

(condensation of, with chlorotriazines)

IT 3177-22-8, Sodium 2,4-diaminobenzenesulfonate

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation of, with cyanuric chloride)

IT 108-77-0, Cyanuric chloride

RL: USES (Uses)

(condensation of, with sodium diaminobenzenesulfonate)

IT 121-57-3, Aniline-4-sulfonic acid

RL: USES (Uses)

(coupling of diazotized, with aminohydroxynaphthalenedisulfonic acid)

IT 3963-80-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling of, with diazotized aminobenzenesulfonic acid)

IT 107143-03-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling of, with diazotized diaminobenzenesulfonics acids)

IT 107143-04-4P 107143-05-5P

RL: PREP (Preparation)

(manuf. of, as dye for aq. liq. dyeing compns.)

IT 80156-97-4

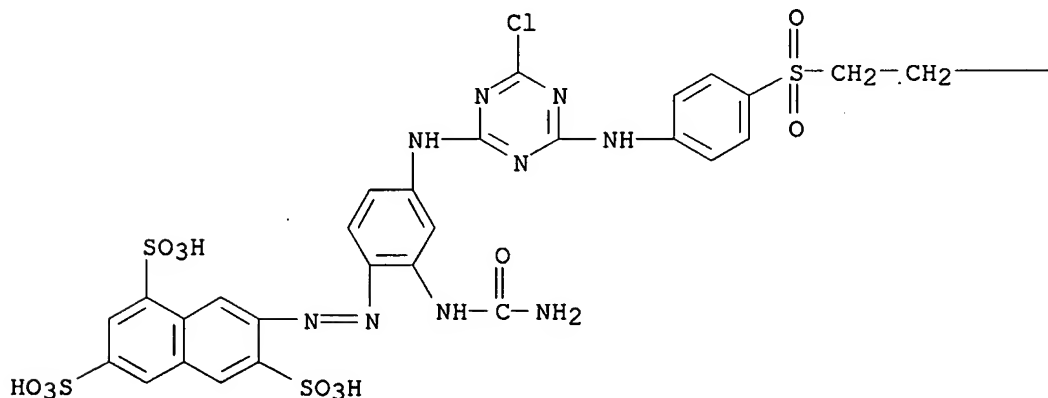
RL: USES (Uses)

(aq. liq. dye compns. contg., manuf. of)

RN 80156-97-4 HCAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—OSO₃H

L70 ANSWER 32 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1986:628527 HCAPLUS
 DN 105:228527
 TI Asymmetrical bis(triazinylamino)stilbene optical brighteners
 IN Connell, David Longley; Farrar, John Martin; Heller, Juerg; Schmid, Hans Rudolf
 PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07D251-54
 ICS C07D251-52; C07D403-04; C07D413-04; C07D251-42; C07D251-48;
 D06L003-12
 ICA C07F009-40
 CC 41-10 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 25, 40, 43

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3605456	A1	19860828	DE 1986-3605456	19860220
	NL 8600439	A	19860916	NL 1986-439	19860221
	GB 2171407	A1	19860828	GB 1986-4511	19860224
	GB 2171407	B2	19891220		
	CH 677112	A	19910415	CH 1986-715	19860224
	BE 904274	A1	19860825	BE 1986-11440	19860225
	FR 2581994	A1	19861121	FR 1986-2696	19860225
	ES 552355	A1	19870801	ES 1986-552355	19860225
	JP 61200974	A2	19860905	JP 1986-39326	19860226
	<u>US 4754032</u>	A	19880628	US 1986-834180	19860226
	GB 2203433	A1	19881019	GB 1988-8411	19880411
	GB 2203433	B2	19890920		
PRAI	GB 1985-5064		19850227		
	GB 1986-4511		19860224		
OS	CASREACT 105:228527				
GI					

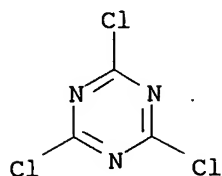
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Asym. stilbene optical brighteners I [R, R1 = NR4R5, SMe, halogen, OR4; R2 = H, C1-4 alkyl, MeO, CO₂H, sulfamoyl, carbamoyl, PhSO₂, CN; R3 = H, Me; R4 = H, (un)substituted Ph, C1-4 alkyl, (un)substituted C2-4 alkyl; R5 = H, (un)substituted C1-4 alkyl; NR4R5 may be heterocyclic ring moiety] are useful as optical brighteners for **textiles** and paper, and are

prepd. by the homolytic oxidn. of sym. stilbenes to the corresponding aldehydes with subsequent unsym. stilbene coupling via the Horner-Wittig reaction. Thus, II was oxidized with KMnO₄ to the corresponding benzaldehyde which reacted with di-Et (4-nitrobenzyl)phosphonate and KOH, the coupled nitrostilbene intermediate reduced to the corresponding amine, and the amine condensed with morpholino(phenylamino)chlorotriazine to form III.

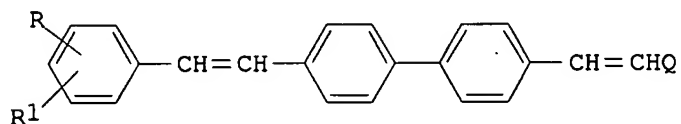
- ST asym stilbene optical brightener; paper **textile** unsym optical brightener; fluorescent asym optical brightener; Horner Wittig stilbene prepn
- IT Fluorescent brighteners
(asym. bis(triazinylamino)stilbenes as, for paper and **textiles**, manuf. of)
- IT Paper
(fluorescent brighteners for, asym. bis(triazinylamino)stilbenes as, manuf. of)
- IT Oxidation
(of sym. stilbenes with potassium permanganate, benzaldehydes from)
- IT Wittig reaction
(Horner, of (triazinylamino)sulfobenzaldehydes with di-Et (nitrobenzyl)phosphonate)
- IT 122-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(Arbuzov reaction of, with nitrobenzyl bromide)
- IT 100-11-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(Arbuzov reaction of, with tri-Et phosphite)
- IT 108-77-0
RL: USES (Uses)
(condensation of, with aniline and morpholine)
- IT 62-53-3, reactions 110-91-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride)
- IT 16090-02-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of, with potassium permanganate)
- IT 2609-49-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Horner reaction of, with [[morpholino(phenylamino)triazine]amino]sulfobenzaldehyde)
- IT 105445-81-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with aminochlorotriazines)
- IT 105445-80-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of, with sodium carbonate and piperidine)
- IT 102269-58-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as optical brightener for paper and **textiles**)
- IT 105445-79-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et (nitrobenzyl)phosphonate)
- IT 108-77-0
RL: USES (Uses)
(condensation of, with aniline and morpholine)
- RN 108-77-0 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trichloro- (9CI) (CA INDEX NAME)



L70 ANSWER 33 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1985:506306 HCAPLUS
 DN 103:106306
 TI 4-(Heterocyclylvinyl)-4'-styrylbiphenyl fluorescent whiteners
 IN Meyer, Hans Rudolf
 PA Ciba-Geigy A.-G. , Switz.
 SO Eur. Pat. Appl., 51 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C07D271-06
 ICS C07D271-10; C07D271-08; C07D251-22; C07D239-26; C07D239-30;
 C07D239-32; C07D239-34; C07D239-38; C07D239-42; C07D239-69
 CC 41-10 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 136259	A1	19850403	EP 1984-810374	19840730
	EP 136259	B1	19880615		
	R: CH, DE, FR, GB, LI				
	US 4666627	A	19870519	US 1984-635099	19840727
	JP 60054372	A2	19850328	JP 1984-164733	19840806
PRAI	CH 1983-4266		19830805		
GI					

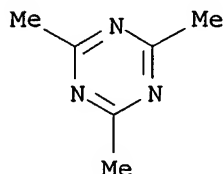


AB Title compds. of general structure I are prepd., where Q = (un)substituted isoxazolyl, oxadiazolyl, pyrimidinyl, or triazinyl, R = H or a **nonchromophoric** substituent, and R1 = H, halogen, or alkyl. I shows a good whitening effect and good lightfastness when used alone or in combination with other whiteners on polyester and **polyamide** substrates. Thus, condensation of 4'-(2-cyanostyryl)biphenyl-4-carboxaldehyde [83255-00-9] with di-Et [(3-methyl-1,2,4-oxadiazol-5-yl)methyl]**phosphonate** [72398-73-3] in DMF at .apprx.40.degree. in the presence of NaOMe gave I (R = 4-CN, R1 = H, Q = 3-methyl-1,2,4-oxadiazol-5-yl) [97908-04-8] as pale yellow crystals m. 178-180.degree.. Condensation of 4'-(4-cyanostyryl)biphenyl-4-carboxaldehyde [83254-88-0] with 2-methylpyrimidine [5053-43-0]

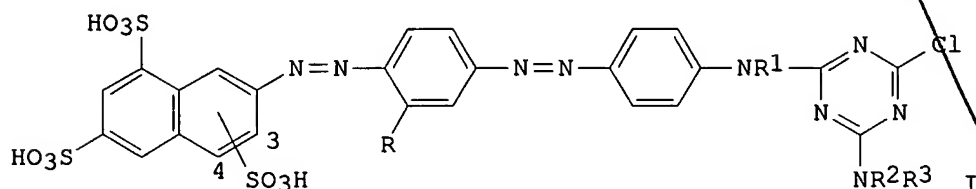
] in DMF contg. tert-BuOK gave pale yellow I (R = 4-CN, R1 = H, Q = pyrimidin-2-yl) [97908-05-9], m. 309.degree.. Numerous other I were prepd. by these 2 methods. Several examples of the use of I on polyester and **polyamide textiles** are described in detail.

- ST heterocyclylvinylbiphenyl fluorescent whitener; stilbene fluorescent whitener; biphenyl fluorescent whitener; oxadizolylvinylbiphenyl fluorescent whitener; pyrimidinylvinylbiphenyl fluorescent whitener; polyester fluorescent whitener; **polyamide** fluorescent whitener
- IT Fluorescent brighteners
((heterocyclylvinyl)styrylbiphenyls, for **polyamide** and polyester fibers)
- IT **Polyamide** fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (heterocyclylvinyl)styrylbiphenyls as)
- IT 97908-00-4
RL: USES (Uses)
(condensation of, with (carboxystyryl)biphenylcarboxaldehyde)
- IT **823-94-9 3438-46-8 5053-43-0**
14331-54-5 30856-31-6 52172-49-3 72398-73-3 89102-71-6
97907-98-7 97907-99-8 97908-01-5 97908-02-6
RL: USES (Uses)
(condensation of, with (cyanostyryl)biphenylcarboxaldehyde)
- IT 53605-96-2
RL: USES (Uses)
(condensation of, with biphenyldicarboxaldehyde)
- IT ~~83254-88-0~~ 83255-00-9 83255-07-6 83255-12-3 97907-96-5
RL: USES (Uses)
(condensation of, with di-Et (heterocyclylmethyl)**phosphonates**)
- IT 66-98-8
RL: USES (Uses)
(condensation of, with di-Et [(methylsulfonyl)benzyl]
phosphonate)
- IT ~~83254-98-2~~
RL: USES (Uses)
(condensation of, with di-Et [(phenyloxadiazolyl)methyl]
phosphonate)
- IT 1041-00-5 2702-44-5 2866-43-5 **3271-22-5** 5089-22-5
13001-38-2 13001-39-3 13001-40-6 22330-48-9 40704-04-9
60682-87-3 60683-03-6 64893-28-3 97908-03-7
RL: USES (Uses)
(fluorescent brightener mixt. contg., for polyester **textiles**)
- IT **97907-91-0P 97907-92-1P 97907-93-2P**
97907-94-3P 97907-95-4P 97908-05-9P
RL: PREP (Preparation)
(fluorescent brightener of, manuf. of)
- IT 97907-69-2P 97907-70-5P 97907-71-6P 97907-72-7P 97907-73-8P
97907-74-9P 97907-75-0P 97907-76-1P 97907-77-2P 97907-78-3P
97907-79-4P 97907-80-7P 97907-81-8P 97907-82-9P 97907-83-0P
97907-84-1P 97907-85-2P 97907-86-3P 97907-87-4P 97907-88-5P
97907-89-6P 97907-90-9P 97908-04-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, manuf. of)
- IT 97907-97-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and condensation with di-Et [(ethyloxadiazolyl)methyl])

phosphonate)
 IT 823-94-9
 RL: USES (Uses)
 (condensation of, with (cyanostyryl)biphenylcarboxaldehyde)
 RN 823-94-9 HCAPLUS
 CN 1,3,5-Triazine, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



L70 ANSWER 34 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1985:80255 HCAPLUS
 DN 102:80255
 TI Reactive disazo compounds
 AU Anon.
 CS USA
 SO Research Disclosure (1985), 249, 49-51
 CODEN: RSDSBB; ISSN: 0374-4353
 DT Journal
 LA German
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 GI



AB Dyes with free-acid general structure I are prepd., where R = C1-4 alkyl, R1 = H or (un)substituted C1-4 alkyl, R2 and R3 = H or (un)substituted C1-6 alkyl, and the SO3H group is in 3- or 4-position. I are fast orange dyes for cellulosic fibers. Thus, diazotization of 2-(4-amino-2-methylphenylazo)-4,6,8-naphthalenetrisulfonic acid [65180-65-6], coupling with PhNHCH2SO3Na [26021-90-9], removal of the methanesulfonate group, and reaction with cyanuric chloride [108-77-0] followed by diethanolamine [111-42-2] gave the tri-Na salt [94852-49-0] of I (4-SO3H; R = Me, R1 = H, R2 = R3 = CH2CH2OH), a light- and wetfast dye with good stability toward oxidizing agents such as hypochlorite, peroxide, or perborate.
 ST disazo reactive dye; azo reactive dye; chlorotriazinyl reactive dye; cellulose fiber reactive dye; cotton fiber reactive dye
 IT Dyes, reactive

([[[(aminodichlorotriazinyl)amino]phenylazo]phenylazo]naphthalenetrisulfonic acid derivs., orange, for cellulosic fibers)

IT 65180-65-6
RL: USES (Uses)
(coupling of diazotized, with sodium anilinomethanesulfonate)

IT 26021-90-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized (aminomethylphenylazo)naphthalenetrisulfonic acid)

IT 94852-49-0P
RL: PREP (Preparation)
(manuf. of, as reactive orange dye for cellulosic fibers)

IT 94852-48-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with cyanuric chloride)

IT 108-77-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amino disazo dye and diethanolamine)

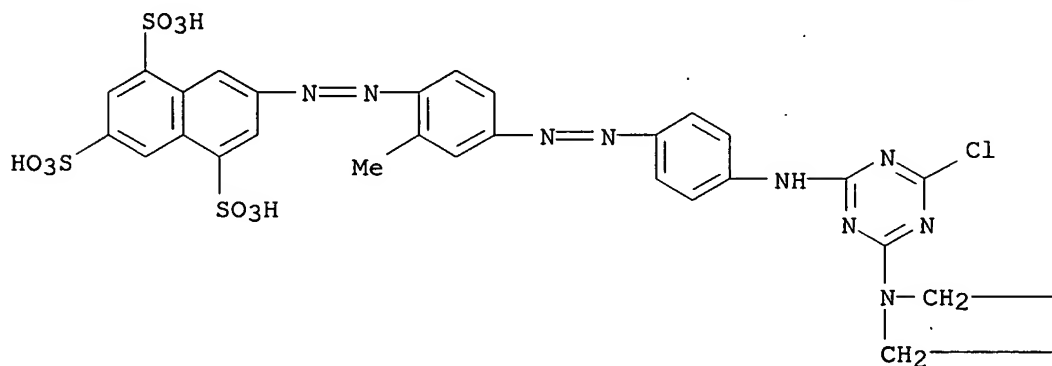
IT 111-42-2, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichlorotriazinylamino disazo dye)

IT 94852-49-0P
RL: PREP (Preparation)
(manuf. of, as reactive orange dye for cellulosic fibers)

RN 94852-49-0 HCAPLUS

CN 1,3,5-Naphthalenetrisulfonic acid, 7-[[[4-[[[4-[[[4-bis(2-hydroxyethyl)amino]-6-chloro-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-methylphenyl]azo]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



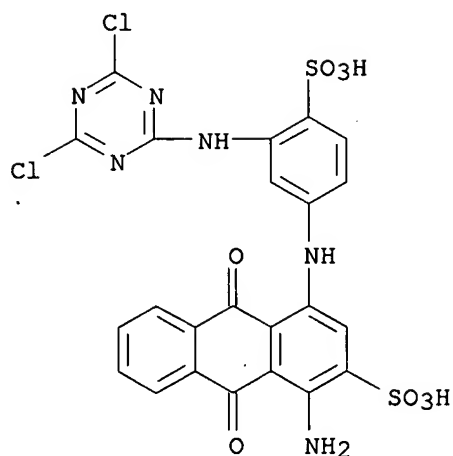
● 3 Na

—CH₂—OH

—CH₂—OH

L70 ANSWER 35 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1984:631919 HCAPLUS
DN 101:231919
TI Quick method for **laboratory** determination of the stability of
Helaktyn dyes during storage
AU Suminska, Jadwiga; Zalech, Alina; Maciejewski, Antoni
CS OBRPB - "Organika", Pol.
SO Biuletyn Informacyjny: Barwniki, Srodki Pomocnicze (1984), 28(1), 16-22
CODEN: BLIBAV; ISSN: 0209-1259
DT Journal
LA Polish
CC 41-1 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
AB A method was developed for detn. of the stability of Helaktyn F dyes
consisting of heating .apprx.1.5 g samples in sealed test tubes at
80.degree. for 1-27 h (depending on the dye), cooling the sample,
dissolving 100 mg of the heated and nonheated (control) dyes in 40 mL
distrd. water, neutralizing the soln. with 0.1 NaOH to pH 7, exhaust dyeing
5-g **cotton** fabrics in the Ahiba app. at temp. optimal for each
dye, comparison of the obtained dyeings with a previously prepd. intensity
scale, and detg. whether the sample gives .gtoreq.10% decrease in color
intensity in comparison with the control dye. Preliminary results
indicated correlation of the method with practical results obtained during
the storage of the dyes for several months, but correlation with results
obtained in acid hydrolysis at 80.degree. under standardized conditions
existed only for dyes having similar chem. structure.
ST Helaktyn F dye stability; reactive dye stability detn
IT Dyes, reactive
(stability of, in storage, detn. of, accelerated method for)
IT 12226-08-3 13324-20-4 17804-49-8 61109-27-1
71012-12-9 74565-17-6 75026-93-6 75026-95-8
75030-18-1 93357-55-2 93357-56-3
RL: USES (Uses)
(storage stability of, detn. of, accelerated method for)
IT 13324-20-4
RL: USES (Uses)
(storage stability of, detn. of, accelerated method for)
RN 13324-20-4 HCAPLUS
CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[(4,6-dichloro-1,3,5-triazin-2-
yl)amino]-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (9CI) (CA INDEX

NAME)



L70 ANSWER 36 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1982:87017 HCAPLUS

DN 96:87017

TI Monoazo dyes and their use

IN Hurter, Rudolf; Maeusezahl, Dieter

PA Ciba-Geigy A.-G. , Switz.

SO Eur. Pat. Appl., 76 pp.

CODEN: EPXXDW

DT Patent

LA German

IC C09B029-01; C09B062-008

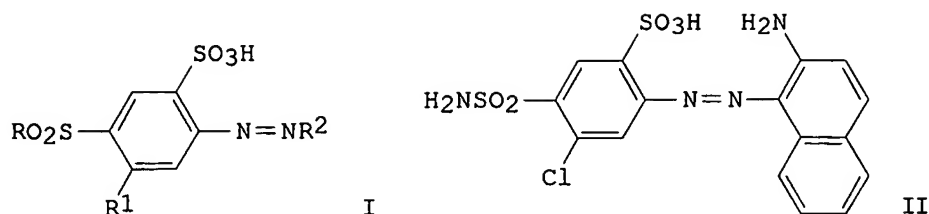
ICA D06P001-06; D06P001-38

CC 41-3 (Dyes, Fluorescent Brighteners, and Photographic Sensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 39306	A1	19811104	EP 1981-810113	19810323
	EP 39306	B1	19840111		
	R: CH, DE, FR, GB				
	JP 56151763	A2	19811124	JP 1981-44753	19810328
	JP 03029825	B4	19910425		
	<u>US 5106960</u>	A	19920421	US 1991-674295	19910322
PRAI	CH 1980-2492		19800328		
	US 1981-246340		19810323		
	US 1986-828610		19860212		
	US 1987-14130		19870204		

GI



- AB Dyes of general structure I are prepd., where R = aryloxy, optionally substituted C1-12 alkyl, cycloalkyl, aryl, or amino, R1 = halogen, lower alkyl, or lower alkoxy, and R2 represents a benzene, naphthalene, or heterocyclic coupler radical. R2 may also contain a fiber-reactive substituent. I are esp. useful as light- and wetfast dyes for **polyamide** fibers. Thus, diazotization of 5,2,4-Cl(H2NSO2)2C6H2NH2 (II) [121-30-2] with NaNO2 (2 mol/mol I) and HCl in aq. sulfolane at 2-4.degree. and coupling with 2,1-H2NC10H6SO3H [81-16-3] gave II [80668-79-7], a red dye showing good lightfastness and migration properties on **polyamide** fibers. Numerous other dyes were prepd.
- ST azo dye **polyamide** fiber; chlorobenzenedisulfonic azo dye; fiber reactive azo dye
- IT Dyes, azo
(aminobenzenedisulfonic acid deriv.-based, for **polyamide** fibers and **wool**)
- IT Dyes, reactive
(azo compds., aminobenzenedisulfonic acid deriv.-based, for **cotton** and **wool**)
- IT **Polyamide** fibers, uses and miscellaneous
RL: USES (Uses)
(dyes for, aminobenzenedisulfonic acid deriv.-based monoazo compds. as)
- IT Diazotization
(of aminochlorobenzenedisulfonamide, sulfamoyl group hydrolysis in)
- IT 537-92-8 588-07-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(chlorosulfonation of)
- IT 6375-46-8 80668-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochloro(dimethylsulfamoyl)benzenesulfonic acid)
- IT 81-16-3 91-67-8 108-95-2, reactions 39240-08-9 **80669-03-0**
80669-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochlorobenzenedisulfonamide)
- IT 121-30-2 1022-62-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazotization of, for azo coupling, sulfamoyl group hydrolysis in)
- IT 80668-79-7P 80669-05-2P 80669-06-3P 80669-07-4P 80669-08-5P
80669-09-6P 80669-10-9P 80669-11-0P 80669-12-1P 80669-13-2P
80669-14-3P 80669-17-6P 80669-18-7P
RL: PREP (Preparation)
(manuf. of, as dye for **polyamide** fibers)
- IT **80669-15-4P**
RL: PREP (Preparation)
(manuf. of, as reactive dye for **cotton** and **wool**)
- IT 80669-16-5P
RL: PREP (Preparation)

(manuf. of, as wool dye)

IT 80668-90-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acetylation of)

IT 80668-88-8P 80668-91-3P 80668-92-4P 80668-95-7P 80669-02-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and azo coupling of, with (diethylamino)acetanilide)

IT 344-69-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chlorination of)

IT 80668-93-5P 80668-97-9P 80669-01-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)

IT 80668-99-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and etherification of)

IT 80668-94-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with di-Me methanephosphonate)

IT ~~344-70-7P 1954-95-6P~~
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with dimethylamine)

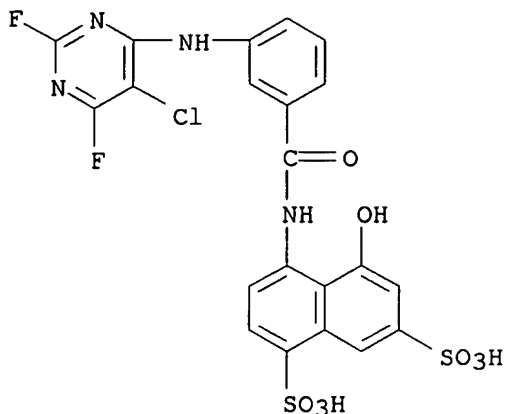
IT 23153-12-0P 80668-87-7P 80668-89-9P 80668-96-8P 80669-00-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sulfonation of)

IT 80668-98-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenol)

IT 80669-03-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochlorobenzenedisulfonamide)

RN 80669-03-0 HCAPLUS

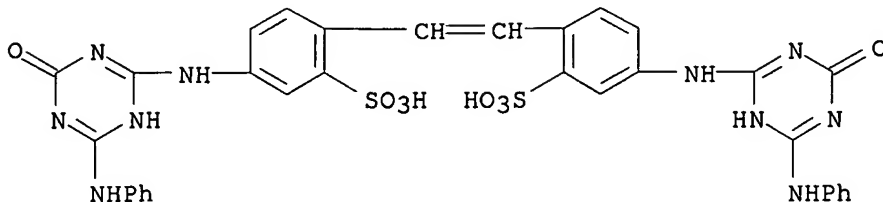
CN 1,7-Naphthalenedisulfonic acid, 4-[[3-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]benzoyl]amino]-5-hydroxy- (9CI) (CA INDEX NAME)



- L70 ANSWER 37 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1981:559777 HCAPLUS
 DN 95:159777
 TI Photochemical decomposition of optically whitening substances in the presence of complexons
 AU Studzinskii, O. P.; Dyatlova, N. M.; Makashev, Yu. A.
 CS Vses. Nauchno-Issled. Inst. Khim. Reakt. Osobo Chist. Veshchestv, Moscow, USSR
 SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1981), 54(8), 1823-5
 CODEN: ZPKHAB; ISSN: 0044-4618
 DT Journal
 LA Russian
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 Section cross-reference(s): 39, 40, 41
 AB Aq. solns. of complexons contg. phosphonic and carboxylic groups acted as photostabilizers, slowing photodecompn. of optical whiteners (derivs. of p,p'-diaminostilbene) while at the same time not effecting the luminescent properties of the others.
 ST optical whitener photostabilization complexon; photolysis whitening agent complexon; luminescence whitening agent complexon; fluorescent brightener complexon photodecompn
 IT Fluorescent brighteners
 (diaminostilbene derivs., photostabilization of, by complexons)
 IT Luminescence
 (of diaminostilbene deriv. whitening agents, complexon concn. effect on)
 IT Photolysis
 (of diaminostilbene deriv. whitening agents, stabilizing effect of complexon on)
 IT 1264-32-0 66813-35-2
 RL: USES (Uses)
 (photodecompn. of, complexon concn. effect on)
 IT 67-43-6 2666-14-0 2809-21-4 6419-19-8
 RL: USES (Uses)
 (photostabilization of whitening agents by)
 IT 1264-32-0
 RL: USES (Uses)
 (photodecompn. of, complexon concn. effect on)

RN 1264-32-0 HCAPLUS

CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[1,4-dihydro-4-oxo-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

L70 ANSWER 38 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1980:496816 HCAPLUS

DN 93:96816

TI Diamino-1,3,5-triazinylstilbene compounds and their use as fluorescent whiteners

IN Erckel, Ruediger; Eckes, Helmut; Roesch, Guenter

PA Hoechst A.-G., Fed. Rep. Ger.

SO Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

DT Patent

LA German

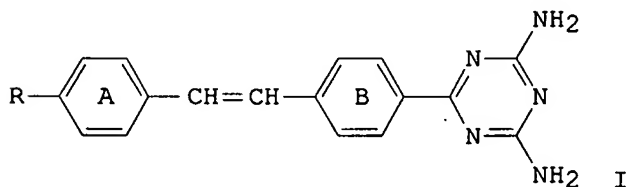
IC C07D413-10; C07D417-10; D06L003-12; C08K005-35

CC 40-11 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 8123	A1	19800220	EP 1979-102893	19790810
	R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	DE 2835540	A1	19800228	DE 1978-2835540	19780814
PRAI	DE 1978-2835540		19780814		

GI



AB Title compds. (I; R = substituted 1,2,4-oxadiazol-5-yl, 1,2,4-oxadiazol-3-yl, 1,3,4-oxadiazol-2-yl, 1,3,4-thiadiazol-2-yl; rings A or B may be further substituted with **nonchromophoric** groups) are prepd. and used to whiten acrylic, **polyamide**, and polyester fibers. Thus, p'-(5-phenyl-1,3,4-oxadiazol-2-yl)-p-stilbenecarbonitrile

- [73755-14-3] was heated with dicyandiamide [461-58-5] in the presence of KOH to give I(R = 5-phenyl-1,3,4-oxadiazol-2-yl; rings A and B not substituted) [73754-76-4]. Approx. 13 other I were prepd.
- ST stilbene diaminotriazinyl fluorescent whitener; aminotriazinylstilbene fluorescent whitener; triazinylstilbene fluorescent whitener; oxadiazolylstilbene fluorescent whitener
- IT Fluorescent brighteners
((diaminotriazinyl)oxadiazolylstilbene derivs., for acrylic, **polyamide** and polyester fibers)
- IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (diaminotriazinyl)oxadiazolylstilbene derivs. as)
- IT **73754-76-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectrum of)
- IT 1874-47-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and bromination of)
- IT 73755-09-6P 73755-12-1P 74682-22-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)
- IT 73754-81-1P 73755-08-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydration of)
- IT 73754-80-0P 73755-11-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with ammonia)
- IT 1552-41-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzaldehyde deriv.)
- IT 73755-13-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzhydrazide)
- IT 73754-79-7P 73755-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with thionyl chloride)
- IT 21464-13-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with urotropin)
- IT 17872-73-0P 74682-23-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sapon. of)
- IT **73754-83-3P 73754-84-4P 73754-85-5P**
73754-86-6P 73754-87-7P 73754-88-8P
73754-89-9P 73754-90-2P 73754-91-3P
73754-92-4P 73754-93-5P 73754-94-6P

73754-95-7P 73754-96-8P 73754-97-9P 73754-98-0P

73754-99-1P 73755-00-7P 73755-01-8P 73755-02-9P 73755-03-0P

73755-04-1P 73755-05-2P 73755-06-3P 73755-07-4P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. and spectrum of)

IT 1552-41-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzaldehyde deriv.)

IT 74682-21-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzamidoxime)

IT 5366-76-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoic acid hydrazide)

IT 461-58-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzonitrile deriv., cyclization in)

IT 613-94-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride deriv.)

IT 613-92-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride derivs.)

IT 619-66-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzylphosphonic ester deriv.)

IT 122-52-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanobenzyl chloride)

IT 65145-97-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et **benzylphosphonate** deriv.)

IT 73754-82-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyandiamide)

IT 73755-14-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyandiamide, cyclization in)

IT 72436-17-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with thionyl chloride)

IT 874-86-2

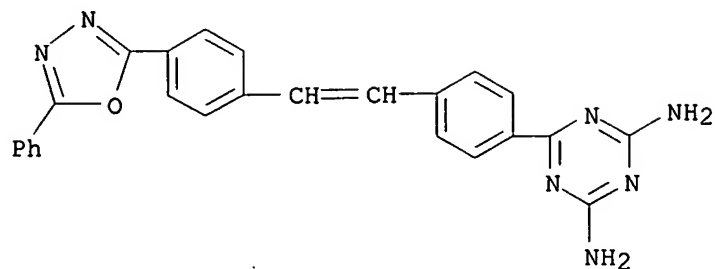
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Et phosphite)

IT 73754-76-4P

RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectrum of)

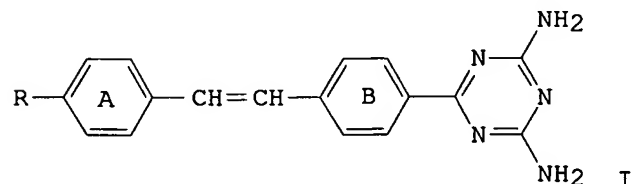
RN 73754-76-4 HCAPLUS

CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 39 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1980:409572 HCAPLUS
 DN 93:9572
 TI Diamino-1,3,5-triazinylstilbene derivatives
 IN Erckel, Ruediger; Eckes, Helmut; Roesch, Guenther
 PA Hoechst A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 35 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C07D403-10
 CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2835540	A1	19800228	DE 1978-2835540	19780814
	ES 483232	A1	19800416	ES 1979-483232	19790808
	EP 8123	A1	19800220	EP 1979-102893	19790810
	R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	DK 7903380	A	19800215	DK 1979-3380	19790813
	AU 7949839	A1	19800221	AU 1979-49839	19790813
	JP 55028975	A2	19800229	JP 1979-102312	19790813
	BR 7905192	A	19800506	BR 1979-5192	19790813
	ZA 7904205	A	19800827	ZA 1979-4205	19790813
PRAI	DE 1978-2835540		19780814		
GI					



AB Fluorescent whiteners of general structure I are prepd., where R = substituted 1,3,4-oxadiazol-2-yl, 1,3,4-thiadiazol-2-yl, 1,2,4-oxadiazol-3-yl, or 1,2,4-oxadiazol-5-yl and rings A and B can be addnl. substituted by **nonchromophoric** substituents. Thus, a mixt. of 4-cyano-4'-(5-phenyl-1,3,4-oxadiazol-2-yl)stilbene [73755-14-3], dicyandiamide [461-58-5], and KOH in MeOCH₂CH₂OH was refluxed for 8 h to

give pale yellow I(R = 5-phenyl-1,3,4-oxadiazol-2-yl) [73754-76-4], .lambda.max 358 nm (DMF), which was applied to **polyamide** and polyester fibers from aq. dispersions, to acrylic fibers from spinning solns., and to polyester by high-temp. extrusion. Thirteen other I were similarly prepd.

- ST stilbene fluorescent whitener prepn; triazinylstilbene fluorescent whitener prepn; fluorescent triazinylstilbene; oxadiazolystilbene fluorescent whitener prepn; aminotriazine fluorescent whitener prepn; polyester fluorescent whitener; **polyamide** fiber fluorescent whitener; acrylic fiber fluorescent whitener
- IT Fluorescent brighteners
((aryloxadiazolyl)(diaminotriazinyl)stilbenes, for fibers and plastics)
- IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (aryloxadiazolyl)(diaminotriazinyl)stilbenes as)
- IT 1874-47-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)
- IT 619-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with di-Et (cyanobenzyl)**phosphonate**)
- IT 73754-76-4P 73754-83-3P 73754-84-4P
73754-85-5P 73754-86-6P 73754-87-7P
73754-88-8P 73754-89-9P 73754-90-2P
73754-91-3P 73754-92-4P 73754-93-5P
73754-94-6P 73754-95-7P
RL: PREP (Preparation)
(manuf. of, for use as fluorescent brightener)
- IT 73755-08-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chem. dehydration of, by phosphorus oxychloride)
- IT 73754-81-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chem. dehydration of, by thionyl chloride)
- IT 1552-41-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and condensation reaction with carboxybenzaldehyde)
- IT 73754-77-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)
- IT 73755-09-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of, by thionyl chloride)
- IT 73755-12-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of, with thionyl chloride)
- IT 21464-13-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and formylation reaction with urotropine)

IT 17872-73-0P 73754-78-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and hydrolysis of)

IT 73754-80-0P 73755-11-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with ammonia)

IT 73755-13-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with benzoic acid hydrazide or benzamidoxime)

IT 65145-97-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with di-Et (cyanobenzyl)phosphonate)

IT ~~73754-82-2P 73754-96-8P 73754-97-9P 73754-98-0P 73754-99-1P~~
 73755-00-7P 73755-01-8P 73755-02-9P 73755-03-0P 73755-04-1P
 73755-05-2P 73755-06-3P 73755-07-4P 73755-14-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with dicyandiamide, ring formation in)

IT 72436-17-0P 73754-79-7P 73755-10-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with thionyl chloride)

IT 5366-76-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with benzoic acid hydrazide or benzamidoxime)

IT 613-92-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with carbethoxy- or cyanostilbenecarbonyl chloride)

IT 461-58-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with cyanostilbene derivs., ring formation in)

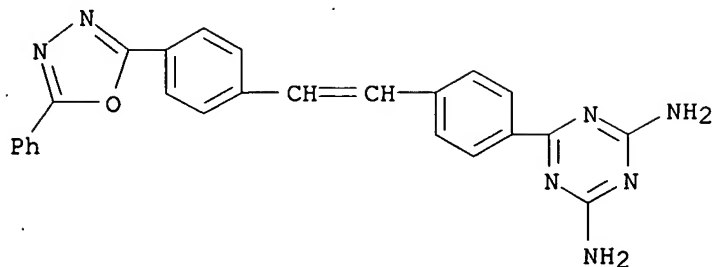
IT 613-94-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with cyanostilbenecarbonyl chloride)

IT 874-86-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with tri-Et phosphite)

IT **73754-76-4P**
 RL: PREP (Preparation)
 (manuf. of, for use as fluorescent brightener)

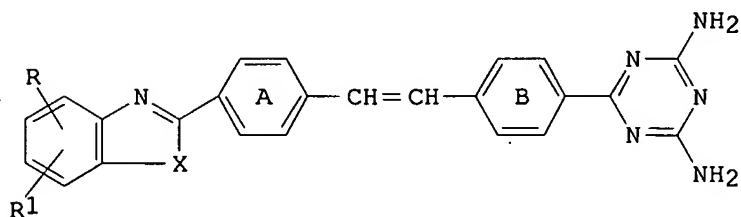
RN 73754-76-4 HCAPLUS

CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 40 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1980:60336 HCAPLUS
 DN 92:60336
 TI Diamino-1,3,5-triazinylstilbene compounds and their use as fluorescent whiteners
 IN Erckel, Ruediger; Schmidt, Erwin; Eckes, Helmut; Roesch, Guenter
 PA Hoechst A.-G., Fed. Rep. Ger.
 SO Eur. Pat. Appl., 40 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC C07D413-10; C07D417-10; C07D263-56; C07D251-18
 CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 2042	A1	19790530	EP 1978-101351	19781111
	EP 2042	B1	19801029		
	R: BE, CH, DE, FR, GB, NL				
	US 4220760	A	19800902	US 1978-959521	19781113
	AT 7808092	A	19810115	AT 1978-8092	19781113
	AT 363486	B	19810810		
	JP 54078726	A2	19790623	JP 1978-139940	19781115
PRAI	CH 1977-14005		19771116		
GI					



I

AB Title compds. (I; R, R1 = H, **nonchromophoric** substituent chosen from F, Cl, Ph, alkyl, lower alkoxy, dialkylamino, trialkylammonium, acylamino, or optionally functionally modified carboxy or sulfo groups; RR1 = alkylene, fused benzene ring, 1,3-dioxypylene; X = O, S; rings A and B may contain **nonchromophoric** substituents) are prepd. and used to whiten **polyamide**, polyester, and acrylic fiber and in

detergent compns. Thus, 4'-benzoxazolyl-2-stilbenecarboxylic acid [4763-79-5] was successively treated with thionyl chloride, NH₃, and thionyl chloride to give 4'-benzoxazolyl-2-stilbenecarbonitrile (II) [33957-79-8]. Treatment of II in MeOCH₂CH₂OH in the presence of KOH with dicyandiamide [461-58-5] gave I (R = R₁ = H, X = O) [72436-32-9] with fluorescence max. 420 nm (DMF).

- ST stilbene diaminotriazinyl fluorescent brightener; aminotriazinylstilbene fluorescent brightener; triazinylstilbene fluorescent brightener; polyester fiber fluorescent brightener; acrylic fiber fluorescent brightener; **polyamide** fiber fluorescent brightener; detergent compn fluorescent brightener; benzazolylstilbene fluorescent brightener
- IT Fluorescent brighteners
(benzazolyl(diaminotriazinyl)stilbenes, for synthetic fibers and detergent compns.)
- IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, benzazolyl(diaminotriazinyl)stilbenes as)
- IT 72436-23-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with tolyltriazine deriv.)
- IT 461-58-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization reaction of, with cyanostilbene deriv.)
- IT 95-84-1 1134-36-7 6623-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with stilbenecarboxylic acid deriv.)
- IT 72400-21-6P 72400-23-8P 72436-19-2P
72436-20-5P 72436-22-7P 72436-25-0P
72436-27-2P 72436-29-4P 72436-31-8P
72436-32-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectral properties of)
- IT 18039-16-2P 33957-79-8P 72400-20-5P 72400-22-7P 72436-18-1P
72436-21-6P 72436-24-9P 72436-26-1P 72436-28-3P 72436-30-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cyclization reaction with dicyandiamide)
- IT 72436-17-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cyclocondensation reaction with aminophenols)
- IT 64893-55-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydration of)
- IT 1552-41-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzaldehyde deriv.)
- IT 19338-12-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoxazolylbenzaldehyde chloroanil)
- IT 122-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanobenzyl chloride)
- IT 619-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et **benzylphosphonate** deriv.)

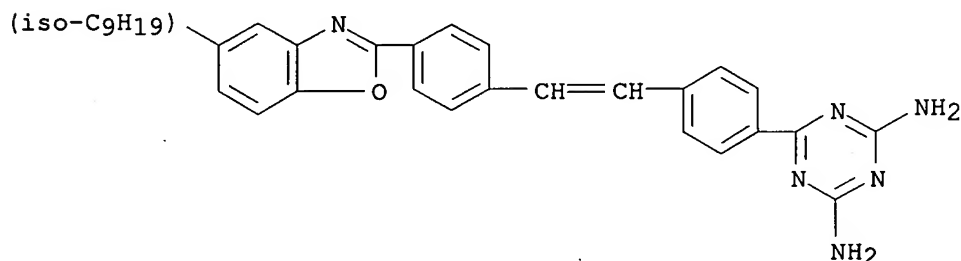
IT 4763-79-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thionyl chloride and ammonia)

IT 874-86-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with tri-Et phosphite)

IT 72400-21-6P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (fluorescent brightener, prepn. and spectral properties of)

RN 72400-21-6 HCAPLUS

CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-isononyl-2-benzoxazolyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 41 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1978:512426 HCAPLUS.

DN 89:112426

TI Fluorescent dyes

IN Eckstein, Udo; Harnisch, Horst

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 38 pp.
 CODEN: GWXXBX

DT Patent

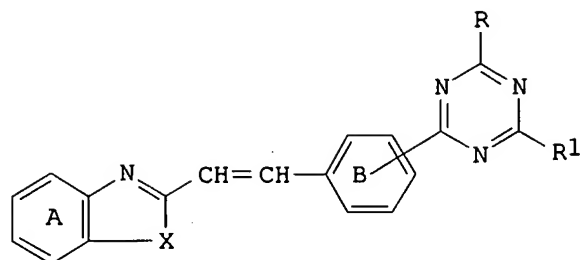
LA German

IC C07D413-10

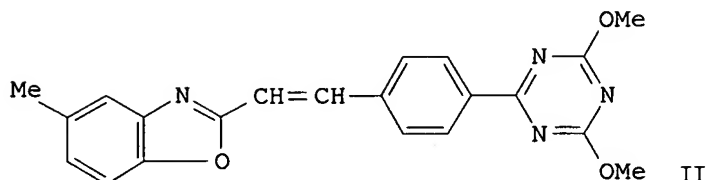
CC 40-11 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2650456	A1	19780511	DE 1976-2650456	19761104
	US 4140852	A	19790220	US 1977-845949	19771027
	GB 1559243	A	19800116	GB 1977-45405	19771101
	JP 53057229	A2	19780524	JP 1977-130916	19771102
	FR 2370083	A1	19780602	FR 1977-33260	19771104
PRAI	DE 1976-2650456		19761104		
GI					



I



II

- AB Fluorescent dyes are prepd. which have general structure I, where R and R1 = halogen, OH, amino, alkoxy, aryloxy, alkyl- or arylthio, acylamino, alkyl, or aryl, X = O, S, or NR2 (R2 = H, alkyl, aryl, acyl) rings A and B can contain **nonchromophoric** substituents, and ring A also can contain 1 or 2 fused carbocyclic rings. I are useful as fluorescent whiteners for synthetic fibers and plastics. Thus, reaction of 2-(chloromethyl)-5-methylbenzoxazole [41014-44-2] with (MeO)3P in DMF and treatment of the product with 4,6-dimethoxy-2-(4-formylphenyl)-1,3,5-triazine [67014-40-8] in the presence of NaOMe gave II [67014-61-3], which showed a deep blue fluorescence in DMF and a fast, strong whitening effect when incorporated in polyester. Other I were prepd. similarly or by condensing triazinylcinnamoyl chlorides with o-substituted arom. amines followed by cyclization.
- ST styryl azole fluorescent whitener; triazinylstyryl fluorescent whitener; plastic fluorescent whitener; **textile** fluorescent whitener
- IT Fluorescent brighteners
((triazinylstyryl)benzazoles, for plastics and synthetic fibers)
- IT Polyester fibers, uses and miscellaneous
Polypropene fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (triazinylstyryl)benzazoles as)
- IT **42010-75-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)
- IT **67014-46-4 67014-47-5 67014-48-6**
67014-49-7 67014-50-0 67014-51-1
67014-52-2 67066-77-7 67066-78-8
RL: USES (Uses)
(fluorescent brightener, for fibers and plastics)
- IT 9003-53-6
RL: USES (Uses)
(fluorescent brighteners for, (triazinylstyryl)benzoxazoles as)
- IT **67014-45-3P**
RL: PREP (Preparation)
(manuf. of, as fluorescent brighener for fibers and plastics)
- IT **67014-44-2P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP

(Preparation); USES (Uses)
 (manuf. of, as fluorescent brightener for fibers and plastics)

IT 67014-61-3P
 RL: PREP (Preparation)
 (manuf. of, as fluorescent brightener for polyester fibers)

IT 67014-41-9P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. and formylation reaction with hexamethylenetetramine)

IT 67014-58-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with aminophenols, ring closure in)

IT 67014-40-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with di-Me [(methylbenzoxazolyl)methyl]
 phosphonate)

IT 67014-57-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with thionyl chloride)

IT 67014-42-0P 67014-54-4P 67014-56-6P
 67014-59-9P 67014-60-2P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

IT 67014-43-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (dialkoxytriazinyl)benzaldehydes)

IT 1199-46-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (diphenyltriazinyl)cinnamoyl chloride)

IT 6623-41-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (diphenyltriazinyl)cinnamoyl chloride, ring closure
 in)

IT 141-82-2, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (formylphenyl)diphenyltriazine)

IT 95-21-6 120-75-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (formylphenyl)triazine deriv.)

IT 67014-55-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methylbenzothiazole)

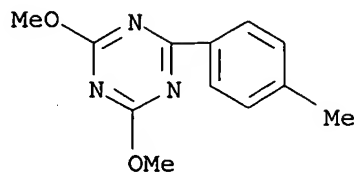
IT 67014-53-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methylbenzoxazole)

IT 41014-44-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with tri-Me phosphite)

IT 42010-75-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (bromination of)

RN 42010-75-3 HCAPLUS

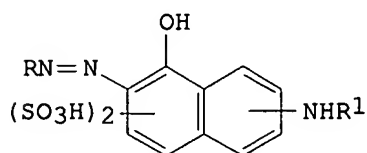
CN 1,3,5-Triazine, 2,4-dimethoxy-6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L70 ANSWER 42 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1978:407577 HCAPLUS
 DN 89:7577
 TI Phosphonic acid mono azo dyes
 IN Andrew, Herbert Francis; Ramsay, David William Crichton; Stead, Cecil Vivian
 PA Imperial Chemical Industries Ltd., UK
 SO Brit., 9 pp.
 CODEN: BRXXAA
 DT Patent
 LA English
 IC C09B029-30
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1491566	A	19771109	GB 1975-18715	19760409
PRAT	GB 1975-18715		19760409		

GI



I

AB Azo dyes I (R = arom. contg. 1 phosphonic acid group, R1 = acyl radical of an org. carboxylic or noncarboxylic acid) were manufd. which can be used with a disperse dye to dye cellulose and polyester blends. Thus, 1-N-benzoylamino-8-naphthol-3,6-disulfonic acid was coupled with diazotized 3-aminobenzenephosphonic acid to give I (R = 3-phosphonophenyl; NHR1 = 1-benzoylamino; 3,6-disulfo) which dyed cellulose **textiles** red.

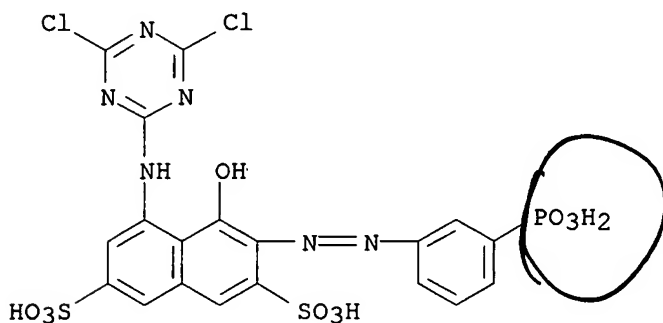
ST phosphonophenylazoaminonaphtholsulfonate dye; azo dye cellulose **textile**; naphtholsulfonic amino azo dye; **aminobenzenephosphonate** benzoylaminoaminonaphtholsulfonate dye; phosphono azo dye

IT Dyes, azo
 (amino(phosphonophenylazo)naphtholsulfonates, cellulosic **textiles**)

IT 5427-30-5
 RL: USES (Uses)
 (coupling of diazotized, with benzoylaminoaminonaphtholsulfonate)

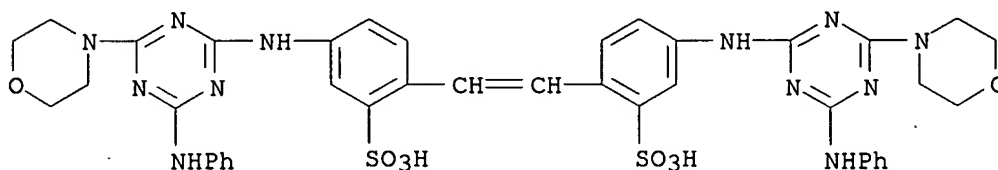
IT 117-46-4
 RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling of, with diazotized **aminobenzenephosphonate**)
 IT 66529-23-5P 66529-24-6P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, for dyeing cellulosic **textiles**)
 IT 66529-22-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with cyanuric chloride)
 IT 66529-23-5P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, for dyeing cellulosic **textiles**)
 RN 66529-23-5 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-
 4-hydroxy-3-[(3-phosphonophenyl)azo]- (9CI) (CA INDEX NAME)



L70 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1975:60493 HCAPLUS
 DN 82:60493
 TI Influence of light on the effectiveness of fluorescent whiteners
 AU Bode, Klaus D.
 CS Bayer, A.-G., Leverkusen, Fed. Rep. Ger.
 SO Investigacion e Informacion Textil y de Tensioactivos (1974), 17(3),
 413-25
 CODEN: IITTCS; ISSN: 0302-5268
 DT Journal
 LA Spanish
 CC 46-5 (Surface Active Agents and Detergents)
 Section cross-reference(s): 40
 GI For diagram(s), see printed CA Issue.
 AB Fluorescent whiteners of types I and II showed better resistance to
 sunlight and the effects of other detergent components than III (R= NHMe,
 morpholino). The degree of whitening achieved using 0.1-0.2% whitening
 agent was measured for a specific laundering cycle, and the effect of uv
 exposure, alkali, Na **perborate** and anionic detergent on the
 whitening of the garment were detd.
 ST aminostilbene fluorescent whitener detergent; detergent fluorescent
 whitening agent; stilbene fluorescent whitener detergent;
 triazolylstilbene fluorescent whitener detergent; lightfastness stilbene
 fluorescent whitener; oxidn resistance fluorescent whitener
 IT Detergents
 (for laundering, fluorescent brightener lightfastness in presence of)
 IT Laundering
 (of **textiles**, fluorescent brightener lightfastness in

- relation to)
- IT Light, chemical and physical effects
(on stilbene fluorescent brighteners, **textile** whitening in
relation to)
- IT Fluorescent brighteners
(stilbene derivs., lightfastness of, effect of detergent components on)
- IT 2H-1,2,3-Triazole, benzenesulfonic acid deriv., derivs.
Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-(2H-1,2,3-triazol-2-yl)-,
derivs.
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
- IT **24231-46-7 35632-99-6** 54275-75-1
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
- IT 497-19-8, properties 7632-04-4 7681-52-9
RL: PRP (Properties)
(stilbene fluorescent whitener lightfastness in presence of)
- IT **24231-46-7**
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
- RN 24231-46-7 HCAPLUS
- CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-(4-morpholinyl)-6-
(phenylamino)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)



- L70 ANSWER 44 OF 53 HCAPLUS COPYRIGHT 2003 ACS
- AN 1974:465173 HCAPLUS
- DN 81:65173
- TI **Laboratory** method for the determination of the fluorescent
brightener retention by cellulose fibers
- AU Higersberger, Ewa; Gomolinska, Mirosława
- CS Inst. Przem. Org., Warsaw, Pol.
- SO Przegląd Włokienniczy (1973), 27(11), 596-8
CODEN: PRZWAZ; ISSN: 0033-2410
- DT Journal
- LA Polish
- CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
- AB The addns. of NaCl [7647-14-5] to the soln. used for fluorescent
brightening of cellulosic fibers increased the amt. of brightener
permanently adsorbed on the fibers. Brightener from the bath even without
NaCl addns. have higher substantivity (S) than the fibers which have a low
sorption without the NaCl addns. The S of brighteners is inversely
proportional to the effect of NaCl on the permanent dye adsorption. This
is the basis of determining S: 2 pieces of **cotton** are treated
with and without NaCl addns. and the difference in their surface color
intensity are detd. by photometer. The relative S values are given for 5
brightener types; the following have the highest S in each dye type:
Heliofor 4BC [52276-60-5], Uvitex CK [52277-00-6], Tinopal BST
[52276-99-0], Blankophor BBU neu [52276-48-9], Photine BTN [

52276-79-6].

ST brightener retention fiber detn; substantivity brightener fiber

IT Fluorescent brighteners
(for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)

IT Sorption
(of fluorescent brighteners, on cellulosic fibers, detn. of, sodium chloride in)

IT 52276-48-9 52276-60-5 52276-79-6 52276-99-0 52277-00-6
RL: USES (Uses)
(fluorescent brighteners, for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)

IT 7647-14-5, uses and miscellaneous
RL: USES (Uses)
(in fluorescent brightening of cellulosic fibers, substantivity and substantivity testing in relation to)

IT 52276-79-6
RL: USES (Uses)
(fluorescent brighteners, for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)

RN 52276-79-6 HCAPLUS

L70 ANSWER 45 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1971:437929 HCAPLUS

DN 75:37929

TI Stilbene fluorescent whitening agents

IN Suzusho, Hiroshi; Mizuno, Sadao; Kajino, Katsura

PA Kanegafuchi Spinning Co., Ltd.

SO Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD

DT Patent

LA Japanese

IC C08K; D06L; C07D

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 46008783	B4	19710305	JP	19680824
GI	For diagram(s), see printed CA Issue.				
AB	Stilbenes (I, M = Na, K; X = Cl, N(CH ₂ CH ₂ OH) ₂ , MeNH, PhNH, OMe; Y = CH ₂ CH ₂ , p-phenylene, CH ₂ CH ₂ CH ₂), useful as fluorescent whiteners for polyamide and cellulose fibers and having good resistance to acid resin treatment, were prepd. Thus, an aq. Me ₂ CO soln. of cyanuric chloride was treated with Na 4,4'-diaminostilbene-2,2'-disulfonate then at 35.degree. with Na 2- aminoethanephosphonate to give I (X = Cl, Y = CH ₂ CH ₂ , M = Na). Three other I were similarly prepd.				
ST	cellulose polyamide fluorescent whitener; phosphonic acids fluorescent whiteners; triazines fluorescent whiteners; stilbenes fluorescent whiteners				
IT	Fluorescent brightening agents (bis[[(phosphonoalkyl)amino]triazinyl]amino]stilbenedisulfonic acid <u>derivs., nylon</u>)				
IT	Nylon , uses and miscellaneous RL: USES (Uses) (fluorescent brightening agents for, bis[[(phosphonoalkyl)amino]triazinyl]amino]stilbenedisulfonic acid derivs. as)				
IT	Phosphonic acid, derivs. with stilbenedisulfonic acid RL: USES (Uses)				

(fluorescent brightening agents resistant to resin treatment)

IT 31732-65-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

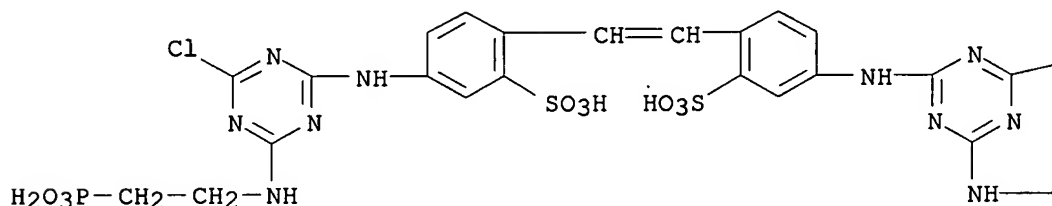
IT 31732-65-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 31732-65-7 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-chloro-6-[(2-phosphonoethyl)amino]-s-triazin-2-yl]amino]-, hexasodium salt (8CI) (CA INDEX NAME)

PAGE 1-A



●6 Na

PAGE 1-B

Cl

—CH2—CH2—PO3H2

L70 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1970:134118 HCAPLUS

DN 72:134118

TI Associating characteristics of reactive dyes with different reactive groups

AU Padhye, M. R.; Karnik, R. R.

CS Dep. Chem. Technol., Univ. Bombay, Bombay, India

SO Physicochem. Aspects Interaction Dyes Solution Fibre Syst., Proc. Symp. (1969), 56-64

CODEN: 17QUA6

DT Conference

LA English

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

AB The aggregating properties of a set of fiber-reactive dyes in aq. phase were investigated by spectrophotometric techniques. The thermodynamic parameters, viz. .DELTA.H, .DELTA.F, and .DELTA.S were calcd. The selected dyes having the phthalocyanine chromophore show very

similar spectra. The differences in aggregation properties and in the thermodynamic parameters of hydrolysed and unhydrolysed dyes were evidently due to different reactive groups. The nature of the spectra clearly indicates parallel-packed configuration in dimers. Both the nature of configuration and the structure of dyes show that the binding forces in the dimer are of the van der Waals' type. The effect of changing the dielec. const. of the solvent possibly **corroborates** the hypothesis. The perpendicular distance between two dye mols., obtained by integrating the band intensities, was used to calc. the van der Waals' energy from some semi-empirical relations.

ST assocn fiber reactive dyes; reactive dyes assocn; phthalocyanine reactive dyes

IT Dyes, reactive
(mol. assocn. in)

IT Entropy
Free energy
(of assocn., of reactive dyes)

IT Heat of association
(of reactive dyes)

IT Spectra, visible and ultraviolet
(of reactive dyes, mol. assocn. in relation to)

IT Molecular association
(of reactive dyes, visible spectra in relation to)

IT C.I. Reactive Blue 21
Copper, [phthalocyaninato(2-)]-, fiber-reactive derivs.
Drimarene Turquoise Blue GX
Phthalocyaninedisulfonic acid, copper complexes
Phthalocyaninedisulfonic acid, [[5-[(4-amino-6-chloro-s-triazin-2-yl)amino]-2-sulfophenyl]sulfamoyl]sulfamoyl-, copper complexes

RL: PRP (Properties)
(mol. assocn. of)

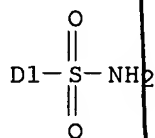
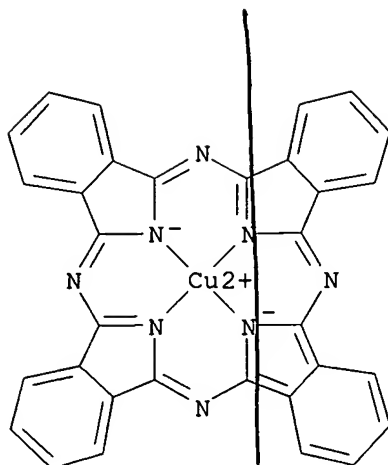
IT 1330-38-7 **12238-09-4**
RL: PRP (Properties)
(mol. assocn. of)

IT **12238-09-4**
RL: PRP (Properties)
(mol. assocn. of)

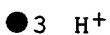
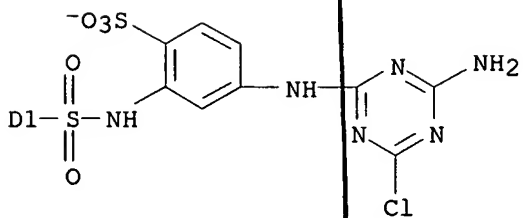
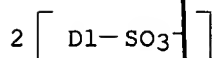
RN 12238-09-4 HCAPLUS

CN Cuprate(3-), [C-[[[5-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]-2-sulfophenyl]amino]sulfonyl]-C-(aminosulfonyl)-29H,31H-phthalocyanine-C,C-disulfonato(5-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, trihydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L70 ANSWER 47 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1965:15639 HCAPLUS
 DN 62:15639
 OREF 62:2851e-h,2852a-d
 TI Pressure sensitive dyes. IV. Synthesis of 3,3-bis(p-
 dimethylaminophenyl)phthalide derivatives
 AU Moriga, Hiroyuki; Oda, Ryohei

CS Univ. Kyoto, Japan
 SO Kogyo Kagaku Zasshi (1964), 67(7), 1054-8
 DT Journal
 LA Unavailable
 CC 46 (Dyes)
 GI For diagram(s), see printed CA Issue.
 AB Alkylation or acylation of the NH₂ group of III gave the following derivs. (substituted NH₂ group, appearance, m.p., color in AcOH, and color with bentonite given): AcNH, colorless needles, 215.degree. (EtOH), blue, pale blue-green; BzNH, colorless crystals, 128.degree. (EtOH), green, green; p-MeC₆H₄SO₂NH, colorless crystals, 135-7.degree. (MeOH), blue-violet, blue-violet; Bz₂N, colorless crystals, 165-7.degree. (MeOH), blue-violet, blue-violet; Me₂N, colorless crystal, 178-80.degree. (EtOH), blue-violet, blue-violet; MeNH (VI), colorless crystals, 202-4.degree. (EtOH), blue-violet, blue-violet; (4,6-dichloro-s-triazin-2-yl)amino, green crystals, 260-300.degree. (MeOH), green, green. Acetylation of III with Ac₂O followed by ethanolysis gave Et 2-[hydroxybis(p-dimethylaminophenyl)methyl]-x-acetamidobenzoate, colorless leaflets, m. 91-2.degree. (C₆H₆), blue in AcOH and blue with bentonite. III was diazotized and coupled to give azo compds. (coupling component and shade on cotton given): 2-Cl₁₀H₇OH, dark brown; 2,3-HOC₁₀H₆CONHPh, rust red (cotton or nylon); 4-H₂NC₁₀H₆SO₃Na, pale red; 2,6-HOC₁₀H₆SO₃Na, gray. These derivs. were characterized by paper chromatography, ir and uv spectrometry.

IT Dyes
 (amino-3,3-bis[p-(dimethylamino)phenyl]phthalide derivs., pressure-sensitive)

IT Spectra, infrared
 Spectra, visible and ultraviolet
 (of amino-3,3-bis[p-(dimethylamino)phenyl]phthalide derivs.)

IT Dyes
 (phthalide derivs., pressure-sensitive, for copying papers)

IT Copying paper
 (phthalide dyes for pressure-sensitive)

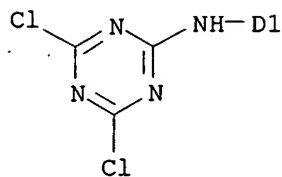
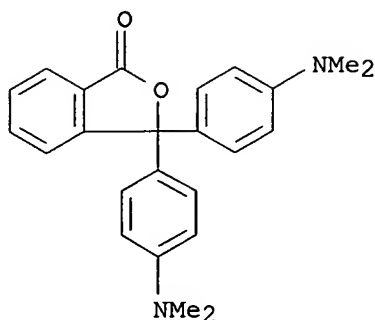
**IT Borate, decahydrodecaborate(2-)
 (derivs., azo dyes)**

IT 3159-89-5, Phthalide, 3-[3-amino-4-(dimethylamino)phenyl]-3-[p-(dimethylamino)phenyl]- 3159-93-1, Benzoic acid, o-[9-(dimethylamino)-12-hydroxy-12H-benzo[a]xanthen-12-yl]-, .gamma.-lactone 3159-94-2, Phthalide, 3,3-bis(m-aminophenyl)- 31740-15-5, Phthalide, amino-3,3-bis[p-(dimethylamino)phenyl]- 31740-23-5, Phthalide, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]- 31740-25-7, Phthalide, 3,3-bis[p-(dimethylamino)phenyl][(2-hydroxy-1-naphthyl)azo]- 31740-27-9, Phthalide, 3,3-bis[p-(dimethylamino)phenyl][(2-hydroxy-6-sulfo-1-naphthyl)azo]-, sodium salt 105209-84-5, Phthalide, [(1-amino-4-sulfo-2-naphthyl)azo]-3,3-bis[p-(dimethylamino)phenyl]-, sodium salt 106198-14-5, Phthalide, [(3-benzamido-2-hydroxy-1-naphthyl)azo]-3,3-bis[p-(dimethylamino)phenyl]- (prepn. of)

IT 31740-23-5, Phthalide, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]- (prepn. of)

RN 31740-23-5 HCAPLUS

CN 1(3H)-Isobenzofuranone, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]- (8CI) (CA INDEX NAME)



L70 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1961:10926 HCAPLUS

DN 55:10926

OREF 55:2130i,2131a-c

TI Wrinkle-resistant, cotton-containing fabrics

IN Hurwitz, Melvin D.

PA Rohm & Haas Co.

DT Patent

LA Unavailable

CC 25 (Dyes and Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2950553		19600830	US	
AB	<p>The aminoplast-condensate formulations described are cured to form wrinkle-resistant finishes on cotton fabrics with sufficient rapidity that curing can be effected by a simple pressing or ironing operation. Thus, 600 g. 50% aq. bis(hydroxymethyl)-N,N'-ethyleneurea, 120 g. of a 50% aq. Et acrylate emulsion polymer, 80 g. of 25% aq. poly(methoxy siloxane), 0.4 g. methylenebis(diamylphenoxypolyethoxyethanol contg. 9 oxyethylene units, 50 g. of 35% aq. Zn(NO₃)₂ as catalyst, and 200 g. 10% aq. poly(vinyl alc.) were made up to 4l. of soln. Cotton garments were then immersed in this soln., the excess liquid was removed by centrifuging, and the still damp garments were ironed. This was followed by pressing without steam at an iron temp. of approx. 190.degree., intermediate between the normal positions for wool and rayon, resp. After ironing, the garments were washed and allowed to dry after draining in as wrinkle-free condition as feasible. In all cases pleats and creases pressed in remained sharp in outline. In another example, the aminoplast resin was dimethoxymethyl(hydroxymethyl)melamine. Other catalysts recommended are Zn(ClO₄)₂, Zn(BF₄)₂, and MgCl₂.</p>				
IT	<p>Textiles (crease- and wrinkleproofing cotton, with aminoplasts curing by ironing or pressing)</p>				

IT Catalysts
(in curing, of aminoplast condensates in creaseproofing)

IT Siloxanes
(methoxy, 1,3-bis(hydroxymethyl)-2-imidazolidinone compns. contg.,
creaseproofing by)

IT Aminoplasts
(**textile** creaseproofing with, with curing by ironing or
pressing)

IT Creaseproofing
(with aminoplast condensates curing by ironing or pressing)

IT Wearing apparel
(wrinkleproofing **cotton**, by aminoplast condensate curing by
ironing or pressing)

IT Zinc **fluoborate**, Zn(BF₄)₂
(catalysts, in curing of aminoplast condensates in creaseproofing)

IT s-Triazin-2(1H)-one, tetrahydro-5-(2-hydroxyethyl)-1,3-bis(hydroxymethyl)-
, condensate with HCHO
(for creaseproofing **cotton**)

IT 140-88-5, Acrylic acid, ethyl ester
(1,3-bis(hydroxymethyl)-2-imidazolidinone compns. contg.,
creaseproofing by)

IT **290-87-9**, s-Triazine
(amino derivs., condensation products with HCHO, for creaseproofing
cotton)

IT 7779-88-6, Zinc nitrate 7786-30-3, Magnesium chloride 13637-61-1, Zinc
perchlorate
(catalysts, in curing of aminoplast condensates in creaseproofing)

IT 85996-90-3, s-Triazin-2(1H)-one, tetrahydro-1,3-bis(hydroxymethyl)-5-(2-
hydroxypropyl)-
(condensate with HCHO, for creaseproofing **cotton**)

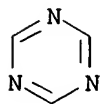
IT 136-84-5, 2-Imidazolidinone, 1,3-bis(hydroxymethyl)-
(creaseproofing by compns. contg., with curing by ironing or pressing)

IT **557-01-7**, 2(1H)-Pyrimidinone
(derivs., condensate with HCHO, for crease-proofing **cotton**)

IT **290-87-9**, s-Triazine
(amino derivs., condensation products with HCHO, for creaseproofing
cotton)

RN 290-87-9 HCAPLUS

CN 1,3,5-Triazine (9CI) (CA INDEX NAME)



L70 ANSWER 49 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1960:135409 HCAPLUS

DN 54:135409

OREF 54:25874b-d

TI Fireproofing of cellulosic **textiles**

IN Malowan, John E.; Nielson, Morris L.

PA Monsanto Chemical Co.

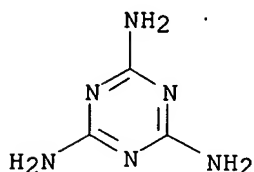
DT Patent

LA Unavailable

CC 25 (**Dyes** and Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2949385		19600816	US	
AB	Cellulosic textiles are permanently fireproofed by a mixt. of the H2O-sol. hydrolysis product of the condensation product of POCl3 and NH3 (mol. wt. 200-250) at pH 7.0-7.5. The condensation takes place at 155-250.degree.. The cellulose contains 5-50% by wt. of the impregnating material and is heated to 100-200.degree. to insure permanence. Addn. of hydroxymethylated melamine increases the stability. Cf. U.S. 2,749,233 (CA 50, 13352i).				
IT	Textiles (fire- or flameproofing cellulosic, with N-P compd. hydrolyzates of NH3-POCl3 condensation products)				
IT	Textiles (flame-retarders for, heat-insulating fluoborate compns. as, and flameproof textiles from products)				
IT	Fireproofing (of textiles , with N-P compd. hydrolyzates of NH3-POCl3 condensation products)				
IT	Ethanol, 2-chloro-, phosphate, dianhydride with N,N'-dimethylphosphorodiamidic acid Phosphorodiamidic acid, N,N'-dimethyl-, dianhydrides with 2-chloroethyl phosphate Phosphorodiamidic acid, N,N'-dimethyl-, dianhydrides with Et (in fireproofing cellulose)				
IT	108-78-1 , Melamine ((hydroxymethyl) derivs., mixts. with NH3-POCl3 condensate hydrolyzates in fireproofing textiles)				
IT	108130-80-9, Pyrophosphoramidate, N-ethyl-N'',N'''-dimethyl-N'-propyl- 116867-58-4, Pyrophosphoramidate, N,N'-dimethyl-N'',N'''-dipropyl- 119211-40-4, Triphosphoramidate, N,N',N'',N''',N''''-hexamethyl- 119211-41-5, Triphosphoramidate, N''-ethyl-N,N',N''',N''''-tetramethyl- (in fireproofing cellulose)				
IT	7664-41-7, Ammonia (reaction products of, with POCl3, fireproofing textiles with N-P compd. hydrolyzates of)				
IT	10025-87-3, Phosphoryl chloride (reaction products with NH3, fireproofing textiles with N-P compd. hydrolyzates of)				
IT	108-78-1 , Melamine ((hydroxymethyl) derivs., mixts. with NH3-POCl3 condensate hydrolyzates in fireproofing textiles)				
RN	108-78-1 HCAPLUS				
CN	1,3,5-Triazine-2,4,6-triamine (9CI) (CA INDEX NAME)				



L70 ANSWER 50 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1960:135370 HCAPLUS

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

DN 54:135370

OREF 54:25868e-h

TI Fiber-forming compositions containing dye-receptive, water-insoluble vinyl lactam polymers

PA Dow Chemical Co.

DT Patent

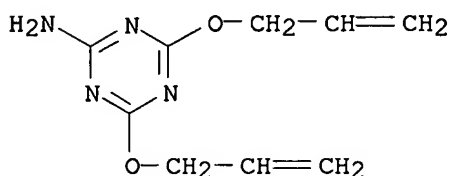
LA Unavailable

CC 25 (Dyes and Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 837982		19600622	GB	
AB	A minor proportion of a cross-linked, H2O-insol. vinyl lactam polymer is uniformly incorporated in fiber-forming compns. to give them greater dye-receptivity. Thus, vinylcaprolactam 4.0, methylenebisacrylamide (I) 4, and K2S2O8 0.05 g. in sufficient H2O to give a total vol. of 100 ml. were polymerized without agitation for 16 hrs. at 50.degree.. About 5.0 g. of a copolymer was recovered and found to contain 69.6% I polymerized in the copolymer mol. The copolymer (10% based on the dry wt. of the fibers) was blended into poly-acrylonitrile fibers. The treated fibers had excellent dye-ability with acetate, direct, and acid dyes, and were extremely resistant to losing the incorporated copolymer upon scouring in strong, aq. detergent solns. at boiling temp. Other copolymers prepd. were vinylpyrrolidinone with I, divinylbenzene, diallyl glycerol, triallyl cyanurate, diallyl sorbitol, diallyl pentaerythritol, diallyl fumarate, diallyl phenylphosphonate , trimethallyl isocyanurate, allyl acrylate, allyl methacrylate, the divinyl ether of diethylene glycol, and 2,4-diallyloxy-6-amino-s-triazine. Nylon 66 and fiber-forming polypropylene, m. 160-5.degree., were also treated with the copolymer of the above example.				
IT	Fibers, synthetic (from acrylonitrile polymers, mixed with vinyl lactam cross-linked copolymers, dye-receptive detergent-resistant)				
IT	Vinyl compounds, polymers (lactam deriv. cross-linked, manuf. of, and dye-receptive fibers from blends with acrylonitrile polymers)				
IT	Acrylamide, N,N'-methylenebis-, polymers with vinyl caprolactam (and dye-receptive fibers from blends with acrylonitrile polymers)				
IT	Sorbitol, di-O-allyl-, copolymers with 1-vinyl-2-pyrrolidinone s-Triazine, 2,4,6-tris(allyloxy)-, polymers of, with 1-vinyl-2-pyrrolidinone (as dye receptive modifier for acrylonitrile polymers)				
IT	s-Triazine, 1,3,5-triacryloylhexahydro-, polymer with 1-vinyl-2-pyrrolidinone (as dye receptive modifiers for acrylonitrile polymers)				
IT	Adipic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone Benzene, divinyl-, polymers of, with 1-vinyl-2-pyrrolidinone Succinic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone (as dye-receptive modifier for acrylonitrile polymers)				
IT	Phthalic acid, polymers of diallyl ester of, with 1-vinyl-2-pyrrolidinone (as dyereceptive modifier for acrylonitrile polymers)				
IT	Maleic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone (dye-receptive modifier for acrylonitrile polymers)				
IT	2H-Azepin-2-one, hexahydro-1-vinyl-, polymer with methylenebisacrylamide (manuf. of cross-linked, and dye-receptive fibers from blends with acrylonitrile polymers)				
IT	28062-44-4, Acrylic acid, polymer with 1-vinyl-2-pyrrolidinone (as dye-receptive modifier for acrylonitrile polymers)				

- IT 30358-11-3, s-Triazine, 2,4-bis(allyloxy)-6-amino-
(copolymer with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
- IT 2590-16-1, 1,3-Propanediol, 2,2-bis[(allyloxy)methyl]-
(copolymers with 1-vinyl-2-pyrrolidinone as dye receptive modifier for acrylonitrile polymers)
- IT 29595-46-8, Propanol, bis(allyloxy)-
(copolymers with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
- IT 25014-41-9, Acrylonitrile polymers
(fibers from cross-linked vinyl lactam copolymers and, dye-receptive detergent-resistant)
- IT 88-12-0, 2-Pyrrolidinone, 1-vinyl-
(polymers of, with unsatd. compds., as dye-receptive modifier for acrylonitrile polymers)
- IT 30358-11-3, s-Triazine, 2,4-bis(allyloxy)-6-amino-
(copolymer with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
- RN 30358-11-3 HCAPLUS
- CN 1,3,5-Triazin-2-amine, 4,6-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



L70 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1960:106233 HCAPLUS

DN 54:106233

OREF 54:20215h-i,20216a-b

TI Flameproof finishing of cellulosic **textiles**. III. Studies on the reaction of chloromethylphosphonic acid-urea mixtures and cellulose

AU Schiffner, Rudolf; Lange, Gottfried

CS Deut. Akad. Wiss., Berlin

SO Faserforsch. u. Textiltech. (1960), 11, 276-83

DT Journal

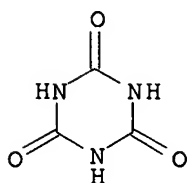
LA Unavailable

CC 25 (**Dyes** and Textiles)

AB cf. CA 54, 11489a. The reactions of chloromethylphosphonic acid (I) with urea and the effects of either or both on cellulosic fibers were studied. Upon heating 1 mole I and 4.3 mole urea together at temps. .gtoreq.130.degree., the former will transform into NH₄ **chloromethylphosphonate** (II) and NH₄ **aminomethylphosphonate** (III). The III content will increase with increasing heating duration and (or) temp. By heating for 20 min. at 150.degree., for example, the ratio will be 60% III and 40% II. With cellulose the chloromethyl- and aminomethylphosphonic acid monoesters form in the ratio corresponding to the duration and (or) temp. of the reaction. The NH₄ salts of the esters will hydrolyze upon rinsing under replacement of NH₄ with H ions. Both the NH₄ and H ions will be replaced with Ca ions if the rinsing was with a CaCl₂ soln. By treating cellulosic fabrics with aq. solns. of the urea/I melts, the same cellulose esters will form in the same ratio as when treated with the unmelted ingredients in soln. By

treating cellulose with urea only with or without antacid catalysts, the fabrics take up a certain amt. of N, most difficult to remove by rinsing. The amt. of N taken up depends on the concn. of the urea soln., duration, and temp. of heating. The taken up N is assumed to be contained in cyanuric acid developed within the fiber.

- IT **Textiles**
(fire- or flameproofing cellulosic, with chloromethylphosphonic acid and urea, and strength loss therein)
- IT Fireproofing
(of **textiles**, with chloromethylphosphonic acid and mixts. with urea)
- IT Cellulose, **aminomethylphosphonate** and **chloromethylphosphonate** and NH₄ salts
(formation in flameproofing)
- IT Phosphonic acid, (aminomethyl)-, cellulose ester
Phosphonic acid, (chloromethyl)-, cellulose ester
(formation in reaction with cellulose and urea in flameproofing **textiles**)
- IT 28997-84-4, Phosphonic acid, (chloromethyl)-, ammonium salt 55101-49-0,
Phosphonic acid, (aminomethyl)-, ammonium salt
(formation in reaction with cellulose and urea in flameproofing **textiles**)
- IT **108-80-5**, Cyanuric acid
(formation of, in cellulosic **textiles** in flameproofing)
- IT 55101-49-0, Phosphonic acid, (aminomethyl)-, ammonium salt
(prepn. of)
- IT 2565-58-4, Phosphonic acid, (chloromethyl)-
(reaction with urea)
- IT 57-13-6, Urea
(reactions of, with (chloromethyl)phosphonic acid and cellulose in flameproofing of **textiles**)
- IT **108-80-5**, Cyanuric acid
(formation of, in cellulosic **textiles** in flameproofing)
- RN 108-80-5 HCAPLUS
- CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)



L70 ANSWER 52 OF 53 HCAPLUS COPYRIGHT 2003 ACS
 AN 1960:59287 HCAPLUS
 DN 54:59287
 OREF 54:11491a-b
 TI Development of durable flame-retardant finishes for **cotton**
 AU Frick, John G., Jr.; Arceneaux, Richard L.; et al.
 SO PB Rept. (1959), Volume 151 550, 69 pp.
 From: U.S. Govt. Research Repts. 31, 340(1959).
 DT Report
 LA Unavailable
 CC 25 (**Dyes** and Textiles)

AB New methods for imparting a durable, flame-retardant finish to **cotton** fabrics were investigated. Primarily, methods were sought for the chem. attachment of P-contg. groups to cellulose. Classes of compds. investigated include: amides of P (V) acids; imides of P (V) acids; tetramethylphosphorodiamidic acid derivs.; P compds. contg. epoxy groups; **triazinylphosphonates**; and phosphoroisothiocyanatide derivs. Also investigated were modifications of the H3PO4-urea process for the phosphorylation of **cotton**. The best finish developed was inferior in some respects to existing finishes. 25 references.

IT **Textiles**
(fire- or flameproofing of, with P compds.)

IT Fireproofing
(of **textiles**, with P compds.)

IT Phosphorus, diethyl
(compds., **textile** flameproofing by)

IT 57-13-6, Urea
(**cotton** phosphorylation flameproofing with H3PO4 and)

IT **4671-80-1**, Phosphonic acid, s-triazin-2-yl- 27972-73-2,
Phosphorodiamidic acid, tetramethyl-
(derivs., in flameproofing **textiles**)

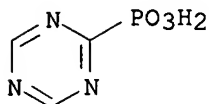
IT **290-87-9**, s-Triazine
(phosphonic acid derivs., in flameproofing **textiles**)

IT 7664-38-2, Phosphoric acid
(phosphorylation **cotton** flameproofing by urea and)

IT **4671-80-1**, Phosphonic acid, s-triazin-2-yl-
(derivs., in flameproofing **textiles**)

RN 4671-80-1 HCAPLUS

CN Phosphonic acid, 1,3,5-triazin-2-yl- (9CI) (CA INDEX NAME)



L70 ANSWER 53 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1958:37904 HCAPLUS

DN 52:37904

OREF 52:6806i,6807a,6808a

TI Anionic guanamine **phosphonates** for use as antistatic agents

IN Schuller, Walter H.

PA American Cyanamid Co.

DT Patent

LA Unavailable

CC 25 (**Dyes** and Textiles Chemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2822364		19580204	US	

AB In an example, 3.0 moles ethyl chloroacetate was added dropwise to 2.0 moles phenylbiguanide in 500 ml. MeOH. The mixt. was heated for 2 hrs. at 50-69.degree., yielding N-phenyl-6-(chloromethyl)guanamine (I). Triethyl phosphite (23 parts) and 23.6 parts I were heated to 160-70.degree. yielding a diethyl **phosphonate** compd. which was mixed with 5 parts dil. HCl and 15 part siso-PrOH and heated for 10 hrs. at 95.degree., yielding ethyl hydrogen 4-amino-6-anilino-s-triazin-2-ylmethylphosphonic

acid (II). The filtrate was treated further with concd. HCl and EtOH for 4 hrs. at 89.degree. to obtain a total yield of 32%. The Na salt of II (5 parts) was dissolved in 95 parts iso-PrOH and **nylon** immersed in the soln. No charge was induced by stroking the sheet with a glass rod for 15 min.

- IT Fibers, synthetic
(elec.-charge prevention on, guanamine **phosphonates** for)
- IT Electric charge
(prevention of, on synthetic fibers, guanamine **phosphonates** for)
- IT Phosphonic acid, [(4-amino-6-anilino-s-triazin-2-yl)methyl]-, ethyl esters
(manuf. of, and use as antistatic agent for synthetic fibers)
- IT Phosphonic acids
(triazine derivs., antistatic agents for synthetic fibers)
- IT 504-08-5, s-Triazine, 2,4-diamino-
(**phosphonates** of derivs. of, antistatic agents for synthetic fibers)
- IT 30355-60-3, s-Triazine, 2-amino-4-anilino-6-(chloromethyl)-
(prepn. of)
- IT 504-08-5, s-Triazine, 2,4-diamino-
(**phosphonates** of derivs. of, antistatic agents for synthetic fibers)
- RN 504-08-5 HCAPLUS
- CN 1,3,5-Triazine-2,4-diamine (9CI) (CA INDEX NAME)

